SAN ANTONIO

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PANIC-FREE PUBLIC SPEAKING

About 85% of people experience stage fright when they give a talk. In fact, surveys have shown that the number one fear among American adults – even above the fear of taxes! – is the fear of public speaking. For some, even having to give an introduction can be agonizing. Obviously, if the anxiety is severe enough it can greatly interfere with our ability to give a good talk.

This tutorial teaches nervous speakers how to manage speech anxiety and how to transform their unproductive "panic" energy into constructive enthusiasm and self control. Tips on preparation and delivery will also be given.

CONTENTS

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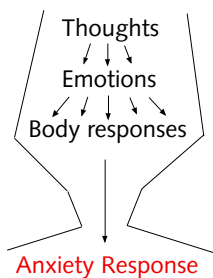barbara @ poynton.com
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Speech anxiety   1

You're prepared to give a talk. You're on time, well organized, and possess complete confidence in your knowledge of the material you're about to deliver. You get up on the stage, and you freeze like a deer in the headlights. Or, even worse, you're worried about freezing, well before you even get up there, and a panic response has taken over your entire body.

Thoughts
↓ ↓ ↓
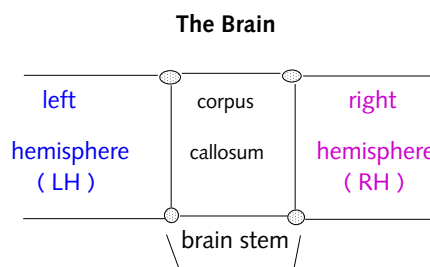Emotions
↓ ↓ ↓ ↓
Body responses
↓

Anxiety Response

For many people, public speaking can be a terrifying experience. The anxiety response symptoms are well documented – dry mouth, sweaty palms, shaking hands, pale (drained) skin, blanking mind, numbing body, shallow breathing, pounding heart, dizziness, quivering voice, weak knees, and butterflies in the stomach, to name a few. The fear and anxiety we feel is an accumulation of the thoughts we have, the emotions they elicit, and the resulting somatic or body responses that are generated.

A brief look at the brain and the nervous system will reveal where our fear response originates, where our rational brains have gone, and how to get these two elements – our minds and our bodies – back, balanced and working together.

Brains

Our brain comprises two hemispheres, connected by the corpus callosum and the brain stem housing our primitive brain. The left hemisphere (LH) and the right hemisphere (RH) both contain sensory, motor and association areas, but for certain functions the two hemispheres are asymmetrical. The LH is dominant for language/speech, hand and motor control, linear thinking, and logical, organizational and analytical

The Brain

left   corpus   right

hemisphere   callosum   hemisphere
(LH)   (RH)

brain stem

LH dominance	**RH dominance**
• language / speech	• music
• hand / motor control	• visual-spatial perception
• linear thinking	• holistic tasks
• logical functions	• emotional functions
• organizational functions	• experiential functions
• analytical functions	

functions. The RH is dominant in music, visual-spatial perception, holistic tasks, and emotional, experiential, and representational functions. Our RH has more functional connection to our primitive brain. Basically, the left brain does the thinking, and the right brain does the feeling.

Nervous systems

Our nervous systems can be divided into two parts: the central nervous system (CNS) and the peripheral nervous system (PNS). The CNS consists of the brain and the spinal cord. The PNS has sensory recep-

```
                          Nervous system
                     ┌──────────┴──────────┐
              Peripheral                    Central
         nervous system (PNS)         nervous system (CNS)
          ┌───────┴───────┐             ┌──────┴──────┐
      Sensory          Motor          Brain        Spinal cord
     receptors       receptors
    environmental        │
                 ┌───────┴───────┐
            Autonomic           Somatic
          division (ANS)        division
      involuntary smooth     voluntary skeletal
      muscles, organs,            muscles
         and glands
     ┌──────┴──────┐
```

Sympathetic   **Parasympathetic**
nervous system   **nervous system**

– dilates pupil   – contracts pupil
– inhibits secretion of – stimulates secretion
   salivary glands   of salivary glands
– accelerates heart rate – slows heart rate
– increases force of   – constricts bronchi
   heart contractions   – stimulates digestion
– constricts most   – contracts bladder
   blood vessels   – stimulates genitals
– dilates bronchi
– inhibits digestion
– relaxes bladder
– inhibits genitals

```
                    blood flow
                        and
                  neural activity

            Sympathetic        Parasympathetic

        • skeletal muscles     • digestion
        • heart                  • resting functions
                                   • the brain
```

tors that detect body changes, internally or externally, and report those to the CNS. The PNS also has motor receptors and controls the voluntary muscles with its somatic part (somatic division), and the involuntary muscles, glands, other organs, blood vessels, and lymph vessels with its autonomic division.

This autonomic division, controlled by the primitive brain, is the one we're the most interested in when we're examining a fear and anxiety response. Called the autonomic nervous system (ANS), it can be divided into the *sympathetic* and the *parasympathetic* nervous systems.

When the parasympathetic nervous system is active we are relaxed, at rest; our heart rate is calm and steady, and our breathing is slow and deep. On the other hand, when the sympathetic nervous system is active our body prepares for an emergency, and the "fight or flight" response is in effect, our heart beat is fast and strong, and our breathing is shallow and rapid. Many of the anxiety response symptoms can be present at once.
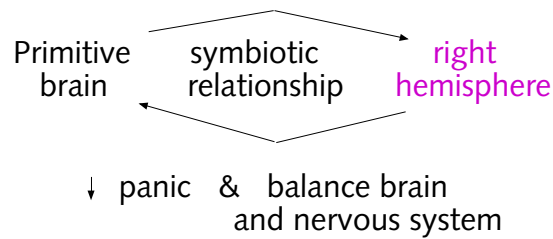
Blood flow patterns, which are an indication of neural activity, are dynamic. They change depending on our physiological and psychological conditions. In a sympathetic, anxious state, our blood flow and neural activity are increased to the large skeletal muscles and the heart.

Consequently, in sympathetic overdrive, when we're experiencing panic and fear of public speaking, very little blood is going to the brain – and thinking clearly becomes extremely difficult.

Help

A few speakers interpret their increased heart rate and queasy stomach as positive signs of being "charged up" and "emotionally ready" for their speech. Their sympathetic nervous systems energize them and their unpleasant physical symptoms remain fairly subdued. Lucky dogs! For most of us an over-sympathetic response is our plight. Our panic is pervasive. However, a strong symbiotic relationship between our primitive brain and our experiential, feeling, right brain suggests that we may have a built in tool that can help us diminish the panic.
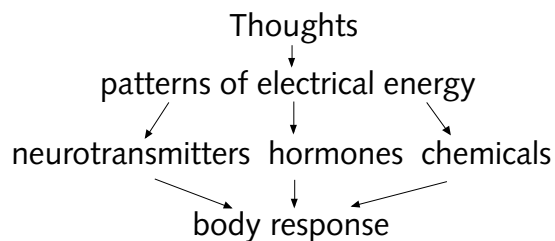
Paradox tapping technique

Primitive   symbiotic   right
brain   relationship   hemisphere

↓ panic   &   balance brain
and nervous system

I would like to explain and demonstrate a technique that incorporates this relationship. You might choose to try it if you suffer from speech anxiety. In the late 1980s, psychologist Roger Callahan combined elements of quantum theory, kinesiology and acupressure, (the "offspring" of acupuncture) in order to treat people with phobias and traumatic stress disorders. He called his technique Thought Field Therapy (TFT). More recently, Gary Craig, an engineer, refined the technique and renamed it the Emotional Freedom Technique (EFT). Kristi Magraw, a body-oriented psychotherapist has further refined the technique. It is my interpretation of Kristi's teaching and understanding of the technique that I will be presenting and we prefer to call it the Paradox Tapping Technique, (PTT).
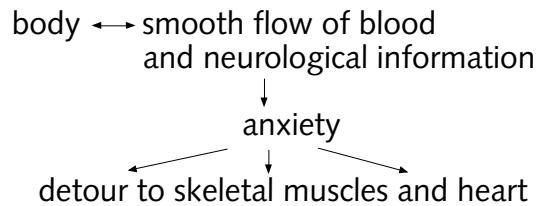
How PTT works

Our thoughts create patterns of electrical energy that cause neurotrans-mitters, hormones, and chemicals to be released in the body; our bodies respond. We experience this physical translation of our thoughts to our bodies as emotions.

Thoughts
↓
patterns of electrical energy

neurotransmitters hormones chemicals

body response

Emotions = physical translation of
thoughts to our bodies

When the anxiety response is activated the flow of neurological infor-
mation and the flow of blood throughout the body are disrupted.

body ←→ smooth flow of blood
            and neurological information
                        ↓
                  anxiety
        ↙   ↓   ↘
detour to skeletal muscles and heart

Anxiety response = **sympathetic**
                            overdrive

Specific points on our bodies correspond to points on the acupuncture
energy-flow meridians. By literally tapping these points we can stimu-
late blocked neural receptors under the skin. The tap will generate an
electrical, biochemical impulse and be transmitted to the brain. Here,
the impulse is interpreted and reconfigured to stimulate the initiation of
several parasympathetic responses. The tapping provides a kick start to
the frozen parasympathetic nervous system.

Increased cooperation and balance between the left and right hemi-
spheres is accomplished through several aspects of the tapping tech-
nique. One of the most powerful is the use of a spoken paradox.

The first step is to think of an emotion you are feeling that you would
like to feel less of, in this case, the fear of public speaking. You may be
afraid you'll freeze, forget your material, or not be able to answer ques-
tions. Whatever the fear is, your job will be to focus on it. Rate it on a
scale from 0 to 10 with the goal in mind to lower this rating. Then,
devise a phrase that states that, "even though I'm afraid … (I'll blow
it), I love and accept myself deeply and completely."

P T T
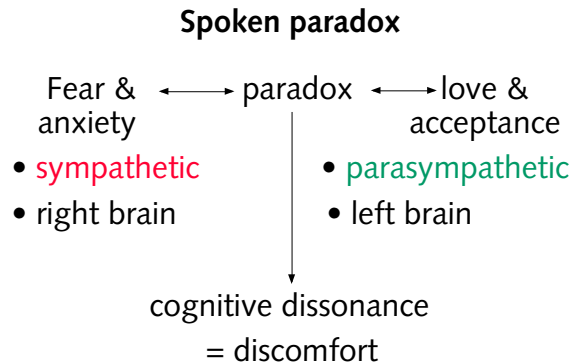balancing left and right brain

1. Think of an emotion
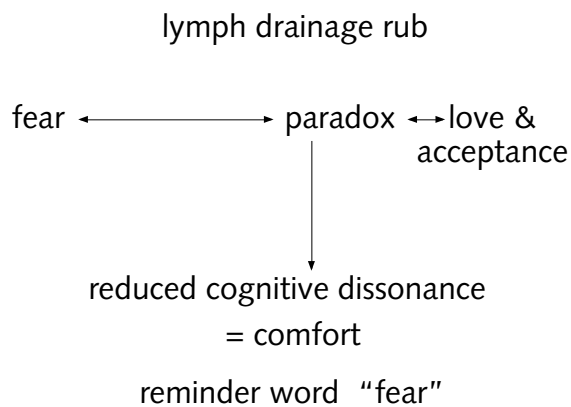
2. Rate it 0 - 10

3. Devise a paradoxical phrase :

   Even though I have _____ ,
   I love and accept myself completely.

What you're doing here is using the paradox of the fear and the accep-
tance to create an obvious focal point of cognitive dissonance. The
body is not happy with cognitive dissonance. The negative fear feeling

and the love and acceptance that you will express in spoken words are experienced with discomfort when in close proximity.

Spoken paradox

Fear & anxiety ⟷ paradox ⟷ love & acceptance

• sympathetic   • parasympathetic

• right brain   • left brain

cognitive dissonance
= discomfort

The paradox will shift in favour of the self love and acceptance, which is bigger and more consistent than the transient, situational fear you are experiencing at that moment. The paradox gets further broken down by the tapping technique as it opens up the energy pathways along the acupuncture energy meridians. The blocked energy – frozen or detoured to produce and maintain the fear symptoms – will begin to flow more naturally as you progress through the technique. You'll use the phrase you've devised and a reminder word like "fear" to focus on and push the paradox towards a resolution while rubbing a particular area on the chest just below the collarbone. This will stimulate the lymphatic system to increase its circulation and begin opening the neural pathways.

lymph drainage rub

fear ⟷ paradox ⟷ love & acceptance

reduced cognitive dissonance
= comfort

reminder word "fear"

Another means of balancing the left and right brain functions within the PTT is an exercise of eye movements. The eyes are moved from side to side and then rolled around in big circles, clockwise and counter clockwise. In a highly sympathetic state the rolling movements may seem jerky and disjointed. It's as though the corpus callosum keeps skipping a beat. It may be useful to continue this sequence until there's at least a hint that a smoother motion is evolving. With the restoration of smooth eye movements comes a smoother transfer of information between the hemispheres of our brains.

Following the eye movement exercise, a quick sequence of humming with the right brain and counting with the left uses contrast pressure to continue the break-up of the LH/RH "brain lock".

I believe this technique works because it effectively connects our body, shouting about our fear, with our mind, knowing the more permanent truth about our competence.

The Paradox Tapping Technique
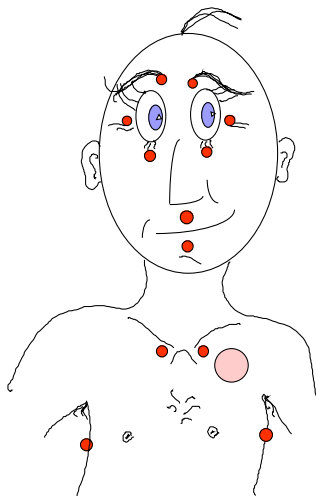
• *Establishing the Paradox*

Devise the pertinent phrase and the reminder word ("Even though I'm afraid … I love and accept myself deeply and completely," and "fear"). Rate the emotion.

• *Preparing the Body*

Hold one hand in a fist with the thumb on top. To stimulate an acupuncture point on the other hand, karate chop the thumb knuckle of the fist hand with the fleshy outside edge of the other hand, below the baby finger. Try to keep the karate chopping hand relaxed. Do this seven times on each hand.

With the fingers of your right hand placed under the left collarbone, rub circles towards the centre of the chest while saying "the phrase" three times aloud ("Even though I have this fear...I love and accept myself deeply and completely").
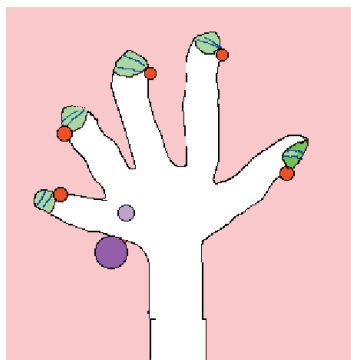
• *Tapping Sequence*

Tap each location firmly with the middle finger of both hands (supported by the index finger). Tap each seven times while occasionally repeating the reminder word.

1. Inner corner of both eyebrows

2. Outer crease of the eyes

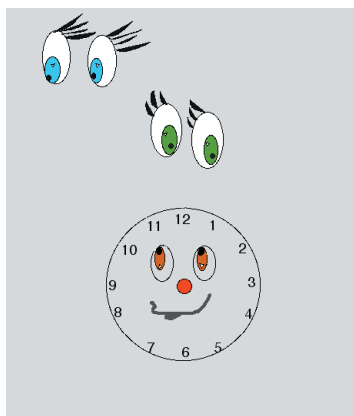3. Bottom, midpoint of the eyes

4. Above upper lip

PTT					
Establish paradox					
Phrase and reminder					
Rate emotion					
Body prep.					
karate chop (7x)					
chest circles w/phrase (3x)					
Tapping w/word (7x)					
inner eyebrows					
eye crease					
bottom eye					
above lips					
under lips					
sternum both sides					
underarms					
fingernail whaps (4x)					
karate chops (7x)					

5. Below lower lip

6. Both sides of the sternum (front of chest) one inch from the midpoint

7. A hands width below the underarm

8. Inside bottom corner of each fingernail on both hands – whap with the opposite index finger, four times for each finger (Whap the *outside* corner of the ring finger)

9. Fleshy part of hand (repeat karate chops)

• *Brain Tune-up/Eye sequence*

Use the right middle and index fingers to tap with steady rhythm a point on the back of the left hand, between the baby finger and the ring finger, at the midpoint between the base of the fingers and the wrist. Keep your head steady and move only your eyes.
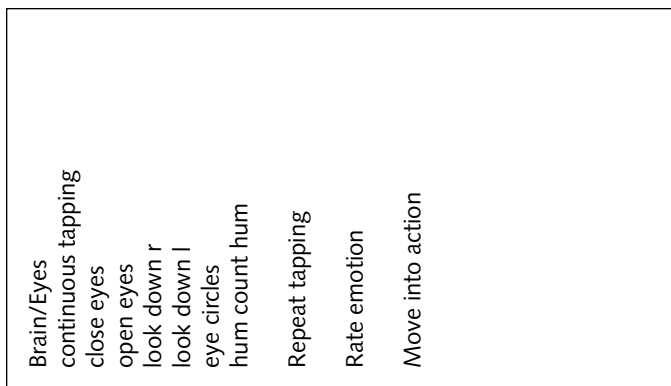
1. Close eyes then open (five taps for each).

2. Look down to the right (with head steady for five taps).

3. Look down to the left (with head steady for five taps).

4. Circle eyes, full, smooth circles one way about five times, and then the reverse.

5. Hum a tune out loud, count to five out loud, and hum a tune out loud (with five taps for each move).

• *Repeat the karate chops and the tapping sequence*
• *Check feeling on a 0–10 scale*
• *Then move into action*

Tips

The objective is not to get rid of the emotions, (fear) but to facilitate a shift and a balancing of body and mind. The number of points in this technique may seem intimidating. If you take it in small pieces, knowing that any amount of it can break up a brain pattern, learning it will be easier. The counting does not have to be exact, in fact, it's better if it's not. In circumstances when you're really in a hurry, you could just work the paradox and get some benefit. There's no right way to do it, just what feels good.

Brain/Eyes
continuous tapping
close eyes
open eyes
look down r
look down l
eye circles
hum count hum
Repeat tapping
Rate emotion
Move into action

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Change your mind   2

There are several ways to manage speech anxiety. The most promising cognitive approach I've found is described by Michael T. Motley at the University of California, Davis, in his handbook, *Overcoming Your Fear of Public Speaking*. According to Motley, the most helpful concept in reducing this type of fear is to focus on your talk as a communication task rather than as a performance.

I've interviewed several excellent speakers and all of them described their delivery on stage as a performance. However, that may not be a useful perspective to hold in mind if you find yourself overwhelmed by speech anxiety. Motley has found that most speakers that experience stage fright view speeches as performances. Conversely, low-anxiety speakers view public speaking as a communication encounter.

The role of speakers is to share ideas, relate their points of view, and make it easy for the audience to understand their information. Of course, there are many performance techniques that may enhance the delivery of that information, but those techniques are merely useful tools rather than the substance of a talk. If you approach public speaking from a *performance orientation* there are many aspects of true performance that tweak the anxiety knob higher; those aspects don't even come into play if you can hold a *communication orientation*.

True performance brings to mind plays, musical recitals, and dance routines. These normally involve the memorization and delivery of a large chunk of material without any breaks, goals oriented towards receiving a positive evaluation of your performance skills, and not being natural – playing a role and even wearing an uncomfortable costume you wouldn't normally be caught dead in. Performances generally suggest abnormal, unnatural situations. There can be considerable fear of tripping over yourself, forgetting your lines, and looking foolish.

Seen as a communication task, a talk can be more closely associated with daily, relaxed, natural conversation than with a performance.
I never memorize my lines in preparation for a conversation – unless it's

with my ex-husband! If a talk is memorized it will sound stiff and unnatural. In a conversation there are pauses where you can collect your thoughts. In a talk, even though you don't have a conversation partner providing pauses, you can build in pauses by dividing your material into nice bite-sized sections. By anticipating a pause, you can more easily make it to the end of each short section. Pause, breathe, move, take a break, and carry on.

Motley says there are only two primary differences between giving a talk and having a conversation. First, you get to talk longer before your "turn" is up, and, second, you get to take more time planning, organizing, and clarifying your thoughts before you speak. When giving a talk, as in a conversation, you can be relaxed, natural, and comfortably attired. Even though you can enjoy the comfortable feeling of having a conversation while you're using the *communication orientation*, you don't have to apply any brain cells to deciphering anyone else's point of view – at least until your designated question period that is!

If you're comfortable performing – great! Perform. If you're not comfortable then remember, it's the content your audience wants, not a performance.

There is one caution to having a *communication orientation* rather than a *performance orientation.* If you're a boring, unanimated, monotone conversationalist, don't expect your talk, no matter how natural, to keep anyone awake. But there's no reason you need to be boring. If you have passion for your ideas – let it show! Just communicate your thoughts with the same excitement that fueled your enthusiasm for giving the paper in the first place.

There are proven performance techniques that you can use to enhance your material and to make your delivery interesting and alive. This will be a lot easier if your anxiety isn't overwhelming you. Changing your mind from a *performance orientation* to a *communication orientation* could help.

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Public Speaking Panic Control Tips   3

The following suggestions are geared towards speakers who suffer from speech anxiety. Some tips may be useful and others may not. Play with them, and get comfortable with what works best for you.

Before

• In advance

Visit the room

If there's a stage, stand on it, speak, scream (as long as no one is giving a talk) cry, faint. Get it out of your system.

Check the temperature so you can plan your comfort level.

Get oriented

Determine the availability of stools, rostrum, projectors, drinking water.

If you'll be using a rostrum, make it your friend.

Check it's height and compare with your height.

If appropriate, plan to use it to rest props on, lean on, use as a foot-stool (put one foot up while standing to ease your back muscles).

Take notes.

• Choreography

Divide the talk into sections and breaks.

Determine several comfortable positions: standing, standing with your foot up on a ledge or stool, sitting, walking. Designate positions to suit the material.

Build movement into the material and use it to help divide the talk into easily accomplished increments. Create breaks with physical signposts (e.g., walk, shift, sit, stand) to be used in the transitions in the material.

Find a good neutral stance, knees slightly bent, not too stiff and not too relaxed. Find it, experience it, remember it.

Play with your hands and your arms to determine where you're most comfortable having them (e.g., hands in pockets, gesturing, holding props).

Choreograph a comfortable physical presentation.

Make notes.

• Night before

Rituals. Find a comfort prop: a squeeze ball, teddy bear, your favorite mouse.

Don't think about the talk (at least for awhile). Do something else – anything else.

Eat well – but not too well!

Do yoga, exercise, a balancing stress reducing technique (e.g., the Paradox Tapping Technique).

• Day of

Breathe

Exercise; jogging, yoga, stretches with deep breathing. If you can do some physical activity before the talk to increase oxygen intake and release endorphins (anti-pain neurotransmitters), it would be a good warm-up.

Dress comfortably with pockets (for hands and props).

Wear cozy, supportive shoes.

Read notes and take them with you. Don't forget your props.

Arrive early – but not too early!

Focus on *communication* rather than *performance.*

Find a quiet room and do the Paradox Tapping Technique about 15 minutes in advance if you can predict you'll have that time available. If not, try to do it as close to your talk as possible.

During

• Settle in

Breathe. When all else fails – keep breathing!

Find your neutral stance.

Have fun.

Remember, you just have to make it to the next section. There are breaks built in. Use them to pause, get your bearings, adjust your breathing, re-establish your neutral stance, (remembering to bend your knees). Think of breaks as mental stretches.

• Movement

You've arranged stools, chairs, the rostrum where you want them to be. Use them: lean, sit, put your feet up.

Try to follow your choreography plan. Movement is important for clear thinking. It provides the breaks from the thinking – space and time for your thoughts to rejuvenate.

Movement builds confidence from the knowledge that you are presenting a more visually interesting scene than does a static figure. Knowing this can be calming.

• Eye contact

...with the right people! Engage with someone in awe, someone who seems excited about what you're saying. This can bolster your confidence and relax you.

Communicating directly with someone helps you feel more connected, more like you're having a conversation.

• Self control

There are several things you have no control of when giving a talk. Apart from equipment failure, most of the unknowns are about the actions of other people. You don't know how many people will enter or leave the room during your talk, or what kind of questions they're going to ask. You have no power or control over the actions of others but you do have complete control over your own. Instead of dwelling on the unknowns, focus on what you know. Take change of the factors within your control. You have the power of self control.

Water control. You can drink as much as you need and keep on drinking.

Oxygen control. You can breath whenever you want and keep on breathing.

Comfort control. You get to decide what to wear and what props to bring to assist in boosting your comfort level.

Motion control; to stand, walk, sit or dance at will.

Bladder control. You can be prepared and use the facilities as well as the Paradox tapping technique to increase the parasympathetic response and decrease the urge!

Passion control. No control necessary.

After glow

Congratulations

It's over. Keep breathing.

You probably did much better than you think you did.

If you're still afraid, seek professional help!

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How to give a great
SIGGRAPH course 4

I have attended many SIGGRAPH conferences, and I have learned
a great deal at them. Several years ago, I decided that I had experience
and expertise in a certain area of interest to SIGGRAPH attendees, so
I decided to propose, organize, and present a SIGGRAPH course.
I wrote this document to help you do the same. I think you'll find it
useful even if you've already contributed to (or organized) a previous
course, or want to organize or moderate a SIGGRAPH panel or sketch.
Much of the content of this document can be applied to courses, semi-
nars, and other events outside of the SIGGRAPH environment.

In addition to reading this document, I encourage you to read Jim
Blinn's classic essay *Things I Hope Not to See or Hear at SIGGRAPH*.
To learn how to deal with the potential panic associated with speaking
to a large group, see the companion documents *Speech anxiety* and
Change your mind by Barbara Morris.

Proposal

The courses committee changes year to year; the goals of the courses
committee changes from year to year. At SIGGRAPH n, the chairper-
sons of SIGGRAPH $n+1$ host a reception to woo prospective contribu-
tors. It's a good idea to attend that event and chat with the courses
chair and courses committee members. Consider the goals of the chair-
person and the committee; try to accommodate them in your proposal.

A course directed to a specialized topic will not attract as large an
attendance as a course on a general topic. Don't let this deter you from
proposing a highly technical course: SIGGRAPH has a broad range of
offerings, and the courses committee does not decide upon courses
only on the basis of their popular appeal.

If your course is accepted, lots of people will read the front part of your
proposal. In fact, it's used for so many purposes, and finds its way into
so many media, that changing it will be tough. Make it accurate.
However, only the information at the very front of your proposal is
published as part of the conference materials; the rest of your proposal
is just for the courses committee, and no one else will read it. This gives

you license to change the plan for your course to some degree. However, keep in mind that the courses chair is your collaborator: Tell him or her what you want to change.

Audience level

The printed summary is all your prospective attendee will see before he or she walks into the room on the day of the event. Understand your audience, and take care to write an accurate summary description of your course. Include in your summary a clear statement of any background knowledge that you expect your attendees to have.

If you're teaching a university course, you know quite accurately the level of knowledge that your students are supposed to have. In the SIGGRAPH environment, prerequisites are advertised, but they are not enforced. There is no screening at the door, and no proficiency test: Anyone can walk in! In a large audience such as at SIGGRAPH, it is nearly certain that the audience will span a very wide range of knowledge and experience. I try to construct my teaching material so that it allows teaching across a wide range. When I create a technical graphic, I try to create it so as to be useful at both basic and advanced levels. I include advanced material as supplementary information at the back of the notes, to satisfy people who want more.

You may find that the audience that shows up on the day of the event is much less knowledgeable and experienced – or much more! – than what you expected. If you have written an accurate description of your course, no one can fault you for sticking to it without reference to who shows up. Your first few times teaching, you should stick to your plan. However, when I'm teaching at SIGGRAPH, I adapt dynamically to the level of knowledge and experience that I perceive the audience to have. If I find the audience to be less experienced than I expected, I shift the level downward: I cover more of the basics and less of the advanced material. Conversely, if I find more experience than I expected, I cover more advanced material. I provide a sufficient range of material in my course notes to accommodate this approach. You can assess the level of audience members by being sensitive to the questions they are asking, and by judging their response to your questions or polls.

However, don't go *too* far afield: If you shift to too low a level, or too high, you risk leaving unsatisfied those attendees – even if there are only a few of them – who are at your anticipated, and advertised, level. These are the very people for whom the presentation was intended! At SIGGRAPH, this is your prime audience. You don't want them to walk away muttering, "Fraudulent advertising!"

This does not apply to SIGGRAPH, but if you're teaching as part of a consulting assignment, you have much more license to change level on the fly. No matter what the prospectus said, you can and should shift your level as necessary to do the most good as judged by the person that contracted you.

Course notes

At most conferences that offer courses, attendees register for specific courses. This allows the organization to provide each attendee with the appropriate hard-copy notes. At SIGGRAPH, course attendance is by way of a "courses passport" that allows the attendee to come and go as he or she pleases among any courses. SIGGRAPH does not offer registration to individual courses, and does not automatically provide hard-copy notes. When you attend a course, it's up to you to purchase notes if you want them. (All course attendees receive notes for all courses on CD-ROM, but – thankfully – the majority of SIGGRAPH attendees do not use that media during a course.)

This scheme has two important implications for organizers and presenters. First, there is a competitive free market among courses! Second, perhaps only half of the people attending have hard-copy notes at hand during the course. People with notes can annotate them with things said during the course that are not printed in the notes. However, attendees without notes will not know exactly what parts of the presentation are included in the notes and what parts are spontaneous. Because such a large fraction of the SIGGRAPH audience is typically without notes, I make a point of saying "This is in the notes," so that people without notes don't have to scribble – they can be confident of finding the material afterward, on the CD-ROM.

Notes production

You should provide a single document, preferably an Acrobat PDF file, containing front matter, notes from all your presenters, and back matter such as supplementary material. For SIGGRAPH 2001, PostScript and HTML/GIF/JPEG files are acceptable, but these will be converted to PDF for distribution. I recommend that you become familiar with the Adobe Acrobat product – particularly the Distiller component – and make your own PDF. (You may also provide additional files.)

Course notes are submitted electronically. Check the guidelines for details of the submission process. Your PDF file is printed and bound for sale at the conference, and mastered onto the course notes CD-ROM.

SIGGRAPH will insert, in front of the material that you provide, a title sheet that contains the SIGGRAPH logo and dates, title of the course, the names and affiliations of the presenters, and a SIGGRAPH copyright notice. Your submission should start with front matter that is specific to your course. (Leave off the title page, as SIGGRAPH will supply this). Your front matter may include the descriptive information that's in your proposal, an agenda and schedule, biographies of your presenters, and a table of contents (TOC) of the notes package.

Decide whether you want to provide contact details for you and your presenters. Balance your desire to be open and available (which argues for full details) with the necessity to avoid giving an open invitation for anyone to call you with a question after the event (which argues for

just a name and affiliation). Obviously you'll include the URL of your home page, and perhaps URLs for your presenters. You may decide to include your e-mail address, and perhaps even your phone number. If you decide that you'd like to include contact details for your presenters, get their permission.

If your course is longer than about 90 minutes, I encourage you to give your audience members license to come and go during the course. You don't want anyone to feel forced to sit through a section he's not interested in, or to sit through a boring presenter. Your front matter should therefore include an agenda with a schedule, so that an audience member can determine the start time of the next topic or speaker that interests him. Even if you don't provide a schedule in the notes, SIGGRAPH will ask you for a schedule; from it they will prepare a placard that will be posted outside your room on the day of the event.

Notes production

When I organized my first SIGGRAPH course, in 1991, notes production was easy: I received a stack of paper from each presenter; I hand-wrote page numbers in the lower-right corner of each page; created front matter including a TOC; and shipped the package by FedEx! Now it's a lot more complex: Notes must be submitted electronically. You have to devise a scheme to get page numbers, and maybe even running footers, onto the submitted pages.

I strongly recommend continuous page numbers throughout your notes package. Use Roman numerals for front matter, and arabic numerals for the body of the work: This way, the body of the work starts at page 1, and the reader can locate pages easily.

I always try to provide a running footer with page number ("folio") and information such as the title (or abbreviated title) of the course, and identification of the section (perhaps the surname of the presenter). I do this for two reasons. First, it makes it easier for your attendee (or reader, after the event) to navigate in the notes. Second, if someone decides to photocopy some pages, elements of the attribution remain so that the ultimate reader knows that the material came from the named presenter, and came from SIGGRAPH. Although the entire notes package will carry a SIGGRAPH copyright, I make a habit of placing a copyright notice in the name of the presenter on the front page of his or her section.

You have to make a high-level decision how you will assemble your presenters' materials. One approach is to use a page layout or publication package. Obtain the elements from your presenters, and flow or place those elements into the page layout or publication package. (This is the approach that I take; I use FrameMaker.) Another approach is to get each presenter to hand you one or more intact sections, either in

PDF or in a format that you can turn into PDF. You can then use Acrobat to assemble the sections.

Consecutive page numbering is easy if you use a page layout application or publishing package to assemble your presenters' contributions. If your presenters submit their sections as PDF files, decide upon a format for the running footer, and tell your presenters. Collect their materials in a first pass, count pages, assign starting page numbers for the sections, and instruct your presenters to give you second-pass material with the final page numbers. If that all seems like too much trouble, then assign section numbers for the notes (1-, 2-, 3-, …), and have your presenters use hyphenated (section-page) numbering.

If you use a page layout application or publishing package, you'll need to obtain the elements of each presenter's contribution in formats that you can import. Graphic file formats are potentially a problem in this approach. Encourage your presenters to use EPS and TIFF, and – for photographs – JPEG. Discourage PICT, WMF, and other platform-specific file formats. It may be difficult to do page layout on an operating system different from the one used to create the elements.

No matter which approach you use, pay attention to fonts: If a contributor uses Acrobat Distiller, have it set to embed all fonts. You can take PostScript and distill it yourself, but your presenter will have to either embed nonstandard fonts into the PostScript file, or provide the fonts to you separately in a format suitable for your OS. To the PostScript and Acrobat machinery, "Times" is not the same typeface as "Times New Roman." PostScript and T$_E$X have an uneasy relationship. If one or more of your presenters uses T$_E$X or L$_A$T$_E$X, be extremely careful about font handling: Make sure that suitable outline fonts are available.

You must get permissions for any elements that you use in your course notes whose copyright is held by a third party. You will sign an agreement with SIGGRAPH confirming this.

Contingencies

In my ten years of teaching at SIGGRAPH, presenters have failed several times to deliver notes. Two or three presenters have canceled, a month or a week before the event. If you're organizing a day-long course, expect one or two presenters to flake out in some way. Try to establish early the likelihood that each presenter will deliver course notes. Decide in advance what to do if not: Will you provide notes, or at least supplementary material, that covers that section? If a presenter cancels, will *you* present that section? Will the material be presented by someone else affiliated with the presenter's organization?

It sounds self-evident, but a week or two in advance of the course, inform your presenters which day you will arrive at the conference, and where you will be staying. Ask your presenters to tell you about you their travel arrangements and contact details.

Rehersal, AV prep

In a big presentation, equipment of technical failure can be catastrophic if you don't have a contingency plan. I take two independent presentation media. In the old days, I used 35 mm slides, and took overhead projector viewgraphs as a backup. Now, I take a laptop computer with my presentation, and I take a second copy of the presentation on a CD-R disc or Zip disk. Ask the AV people, in advance, what media will be available. Plan what to do if your computer crashes. Will you wait for reboot, or switch to a backup computer?

Make friends with the staff in the Speaker Prep room. Know their names. (Especially Steve.)

Make friends with your AV crew. Know their names.

Learn how to use the wireless microphone. Learn from the AV crew where to place it for best sound quality. Remove or reposition your badge if necessary, to avoid noise from its scraping against the mic. Learn where the MUTE switch is located; practice using it. If you feel a sneeze or a cough coming on, or need to make a side comment to someone privately during the presentation, mute your mic.

Familiarize yourself with the stage. Get up onto the podium (or riser); walk around. Walk around the front of the room. Get comfortable. Visualize the audience arriving; visualize the call to order.

Providing yours isn't the first presentation in the room, spend some time listening to other presentations taking place there. Watch from the back; sit at the front. Make yourself aware of problems of the presenter – standing where he's not visible, handling the microphone incorrectly. Become aware of ambient noise, light level.

If you're a nervous organizer, or maybe even if not – appoint a friend or colleague to be your assistant during the course. If you need to have your water jug refilled, or need to have a quick errand run while you're on stage, ask that person. Request that your assistant let you know about anything in the audience that he or she thinks needs immediate attention – perhaps it's too cold, or the light levels are too low.

Starting

At a SIGGRAPH course, the organizer will open the course. If you're organizing, or moderating, this section is directed to you.

Especially for a large audience, it's important to start crisply. Arrange for a start cue with the AV crew. At SIGGRAPH, music plays before the presentation and during breaks. When the music fades, that is a cue to the audience: Use it! If you don't do something within 5 or 10 seconds, the attention of the audience will be lost, and there is bound to be some awkwardness in getting it back.

You'll have several minutes of things to say before you proceed to your first graphic. You'll want to welcome the audience, introduce yourself, perhaps make some housekeeping announcements. Make a note in advance to remind you of what to say when you start.

This is not necessary at SIGGRAPH, but in some circumstances it will be appropriate to thank whoever invited you to present; it also might be appropriate to make some comfort and safety announcements such as pointing out the location of washrooms, telephones, and fire exits.

I make a point of mentioning the materials that attendees should have in front of them. In the case of SIGGRAPH, mention that hard-copy course notes are available at the SIGGRAPH store. (You may want to canvass the audience to see how many people have hard-copy notes in front of them. You may be surprised at how few people have notes on hand; this may prompt you to rethink any part of your presentation that assumes people can refer to the notes.) I explain that the notes are available on CD-ROM. If there is any supplementary material, errata, or other documents, say where it can be found.

I announce the schedule, including break times, and the speakers. This enables an audience member to attend just the segments in which he or she is interested. If there is a missing presenter, or a schedule rearrangement, say so. I announce the scheduled end time of the course, and I try to stick to it.

Announce the question protocol: "We'll be happy to answer questions at the end of each section." If you're bold, say "Feel free to interrupt me anytime if you have a question – just raise your hand, or say Excuse me." (See *Handling questions*, below.)

When you ask a question, perhaps to query the audience on a topic, take care to give a question with a binary answer, and be clear in which sense you expect the response. Don't say "How many of you know why the sky is blue." I make a habit of prefacing such a question with "Raise your hand if … ."

Introducing a speaker

I make it a policy to give very brief biographical data. I include biographical data in the front matter of handouts, to avoid having to present it. If my presenter has never presented at SIGGRAPH, I say so: This makes the presenter feel a little more at ease in the strange environment, and it also cues the audience that the presenter might not be familiar with SIGGRAPH customs. (Go easy on him or her!)

Decide whether you want your speakers to be greeted by applause. If so, say "Please welcome John," and pause. If not, say something like "John, please come up and let's get started… ." If you don't create a moment for applause, there will be none. But it takes just a moment – it adds excitement, it will probably make your presenter feel *good*, and

it will wake up any audience member that has fallen asleep. (It happens!)

Performance

I don't like presenting from behind a rostrum, or sitting behind a table. I prefer to speak standing on the stage (or podium or riser), out in the open. That approach may not be suitable for some venues, though: when you evaluate your room, decide where you will present from.

Sometimes, I even take to the main floor! Whether or not I do this depends upon the room, the audience, and the event. The area in front of the stage may not be lit; presenting from there may lead to my not being visible to all of the audience. However, I may decide that for a certain section of the presentation seeing my visuals is more important than seeing me. I may stand in front of the screen, looking back at it, sharing it with the audience. If I'm going to move to several places to present, I arrange to have a glass of water at each place.

If my presentation is a long one – say 45 minutes or more – or if I have more than one session during a course, I arrange to have a high stool handy. I sit on it occasionally, to rest my back, my legs, and my feet. While standing, I can rest a leg on it; this helps my back.

It is a mistake to perform while obviously looking at a video monitor or a computer screen at the podium or in front of the stage: This is bound to distance you from your audience. Take a glance at such displays when necessary, but do not make it obvious. You want the audience members to believe that you are sharing the presentation with them; it's important to appear to them to be using the screen that they are using.

Be aware of the power implied by your physical position on the stage. If you are close to the audience, you are commanding, especially at center stage. If you are on stage with someone else, perhaps moderating questions for one of your presenters, take a commanding position. If you are interacting with the audience, inviting questions perhaps, stand to one side, and maybe a little upstage, to be less commanding. If you have lots of time, and a questioner from the audience is asking about something very interesting, drop back and let him or her have space and time. If you feel confident, and have a specific reason to do it, walk into the audience.

If you're presenting to a large group, expect people in the audience to come and go during your presentation. Don't be flustered by this. It's their right. It does not reflect poorly on you when people leave; their leaving is probably unrelated to anything you did!

Talk fast! Record yourself in rehearsal; gauge your speed. You'll likely find yourself much slower than you thought. So speed up. (Experiment with the "speedup" control on your voicemail system; you'll find that

intelligibility doesn't suffer even at 1.5x speed.) It's much better to talk fast, then have a long pause, than to talk slowly for the same duration.

Generally, each visual on the screen is a cue to a specific part of my talk. If I get lost, I just look at the screen. If I've exhausted the discussion about one screen, even if I can't remember the next topic, I advance to it. As soon as it flashes up, I remember what to say.

I always have a copy of my course notes at hand. If I get *really* lost, I can refer to the notes to see where I am. If a person asks a question that I do not wish to answer live, I riffle through the notes to find where the issue is discussed, and refer the questioner to that.

The closer the order of your presentation matches your notes, the better the audience members – at least, the ones with notes – will like it. If you depart from the order of your notes, make a point of saying so, and give page numbers. People attending SIGGRAPH events want to be exposed to new information, even information that has come to light after the notes were prepared. Feel free to present material not in the notes. However, in this circumstance, it is a good idea to announce that you will make notes for those portions available after the event.

If you're an organizer or moderator, obtain from each novice presenter four or five milestones of his or her presentation, and agree upon what will happen if he or she runs late. If the first or second milestone is substantially delayed, try to put yourself in the presenter's shoes and assess the reason for the delay. Is the presenter spending time on basics because he or she has determined that the audience lacks background? If so, then spending time on basics (and cutting out advanced material) might be justified. But if stretching the time given to early material is not justified, you should get the presenter's attention and give a speed-up signal. Your presenter may be flustered for a moment, but this is outweighed by the longer-term benefit. Near the end of a presentation, you might have to exert control over your presenter to end on time or nearly on time – perhaps you'll have to approach and whisper "I think we should end here and proceed to questions [or take the break]."

Handling questions

Encourage questions! It sometimes takes quite a bit of encouragement to evoke the first few questions, especially from a large audience. Once the process is started, though, questions will flow more freely.

I invite people to interrupt my presentation by raising their hands, or saying "Excuse me!" In addition to the obvious benefit of answering questions right away, the technique has several other benefits. It helps me gauge how well the audience is following my presentation, thereby helping me to decide to speed up or to slow down. It alerts me early on to any problem with my presentation, so I can correct it on the fly. It adds excitement, and keeps the audience on their toes. However, this is a risky proposition; I recommend this approach only after you've had

quite a bit of experience in presenting. There are two main risks in this technique. First, when a question is asked (and perhaps even before the questioner is finished asking it), I need to quickly evaluate the relevance of the question to the material and the audience. Second, no matter how complex the question, I need to give a fairly short answer. It is quite reasonable to say, "I'll address that question in a few moments!" In fact, a question that provokes that response is ideal: It keeps the audience engaged. However, in deferring an answer, I try not to forget that fact! I say, "When I show you the slide with $E = mc^2$, I'll answer that question; please ask again if I forget."

Unless the floor is set with microphones for audience questions, or you're addressing a small where everyone can hear everyone else, it will be necessary for you to repeat (or paraphrase) each question. It is very frustrating for an audience member to get just the answer, without the context. In the excitement of the moment, you may forget to repeat the question. It is entirely reasonable for an audience member to interrupt you with "Repeat the question!" When I was new at presenting, I instructed my assistant to prod me this way if I forgot.

Offer encouragement to questioners: "That's a good question!"

In large groups, there's the persistent issue of questions – or worse, *comments* – from flakes, kooks, and lunatics. Well, I'm exaggerating, but you have to be able to quickly judge whether a question is of interest to a reasonable fraction of the people listening. If it isn't, then you should respond with something like, "That's an interesting question; however, it's too specialized to be of general interest. Please come up at break [or after the talk], and we'll talk about it." If you have already answered the question in an earlier part of your talk, make a judgement whether the question concerns material that the audience didn't follow. You may have to repeat the earlier explanation. But if you think the issue was well covered earlier, say so! The questioner might have been out of the room for that part, or might have arrived late. Your strong obligation is to people who have been in for the duration.

At SIGGRAPH, expect many people in the room to know more about some of the material than you do. If you don't know the answer to a question, say so! (I believe that this approach should be taken at all times, not just during SIGGRAPH courses.)

I have developed a reflex: Whenever someone asks a question, while they're speaking, I take a drink of water. There are few opportunities to drink when you're talking nonstop; I seize every opportunity!

I have another reflex: Upon finishing an answer, I ask, "Did that answer your question?" If not, I encourage the questioner to come up and see me after class. Also, providing I'm not running too tight for time, I ask "Are there any other questions?" so as to take advantage of the contagious nature of questions.

Breaks

Stick to your schedule as much as you can. People may have left, and may be planning to come back to hear a specific part of the course based upon the posted or announced schedule.

Don't defer a break because you need more time. (Or should I say, don't defer a break because you failed to anticipate course timing.) It's much better to fill out to the published ending time by having 15 minutes of Q & A, or by presenting 15 minutes of supplementary material, or by ending 15 minutes early, than it is to end 15 minutes late. People are likely to have other appointments; at the end of the course, people are likely to have trains and busses to catch.

When there's a break, *you* need a break as much as any audience member! Take the time to do what you need to do, even if you are approached by audience members who are desperate to talk to you. Be firm. Say, "I have to make some preparations for the next section," or to make a stronger point, "I have to pee." Propose a time to meet, after the course, or at lunch, when you can talk.

This consideration does not apply to SIGGRAPH, but when people have traveled to an event that you are hosting, it might be appropriate to suggest where they can find lunch. Do research beforehand, if necessary; present a list of lunch spots. At coffee break, if it isn't obvious, say where coffee and drinks can be found.

As you announce a break, make very clear what time you'll resume.

In a large group, as soon as the words "Let's break" have left your lips, people will start to shuffle and get up. If you have any housekeeping announcements to make, do so *before* you pronounce those two words. Otherwise, you won't have the attention of the audience.

At an all-day course, *you* must eat lunch! You're bound to be delayed leaving the room, and you'll want to return early. If time is limited, perhaps you'll want to ask your assistant or a student volunteer to bring a sandwich for you, or to reserve a place at the café.

Ending

At the end of a long presentation, especially to a group of about 20 people or more, audience members are probably ready to applaud. Give them the cue to do so! If you want applause – and who doesn't! – you must create a moment for it. If you say, "Ah, well, uh, I guess that's the end, are there any questions?" people can't applaud, because you have asked for questions, not applause. All you need to say is, "Thank you very much!" Then pause. You can emphasize this with a physical gesture – a slight bow, or just a nod of your head. They'll applaud – if they want to. You're not flashing an *APPLAUSE!* sign like they do in television game shows, you're just creating the

moment. It's highly unlikely that the moment will pass without applause. (If it does, just go on.)

If you are a moderator, arrange in advance the handoff from one speaker to the next. If you have inexperienced speakers, then you will probably want to take the stage (during the applause) to moderate the question interval after each speaker, to declare the end to the questions, to thank the presenter, and to introduce the next presenter (or to announce break). But instruct each speaker in the point above. If there's one line each presenter should memorize, it's "Thank you!"

At the end of the course, don't fizzle out. Make any necessary housekeeping announcements. Invite attendees to fill out evaluations. If you like, encourage people to come up front after the course, or even to seek out the presenters the rest of the week. Then firmly delineate the end of the course with a "Thank you!" – and that's it. Once more than one or two dozen people start shuffling around, or start to get up to leave, it will be impossible to regain the attention of the audience.

Expect to be mobbed

At the end of a SIGGRAPH course, the presenters are liable to be mobbed! If you have done well, and you have projected that you are knowledgeable and approachable, many people will come up to introduce themselves, tell you about their work, and ask questions. This can be an exhilarating time, of course – but keep a few things in mind.

You'll probably feel the urge to address people from the stage. If you act on this urge, you risk being perceived as distant, powerful, and unapproachable. Instead, descend from the stage immediately, so as to make yourself a member of the group. This interaction is a conversation, not a lecture.

A few people will approach urgently. Some people will mill around just to hear the conversation. Shy people might have interesting questions or important observations – try to acknowledge and engage even the shy people; don't permit the insistent people to dominate. Give gracious people the advantage.

Respect the needs of the AV crew and the facilities people. They may have to re-set the room for the next event, or clean up the room, or lock the doors and go home. If you want to continue the conversation, suggest taking it out into the hall, a lobby, or a common area.

You'll probably be wired and exhausted – you're prone to forget to collect your presentation materials from the AV crew. Don't forget.

Finally, respect your need to decompress. You have just exhausted yourself for an hour or a day – you have the right to your own time!