

Running Excellent Retrospectives

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Courtney

The subtitle of this talk could also be “words mean things”.

I don’t think we need content warnings for this talk; we do talk about an engineering disaster in which no one was injured. But if, after, you think we did, please come let us know.

We don’t have our twitter handles on each slide because I have a personal twitter but Lex does not.



Courtney Eckhardt, @hashoctothorpe (she/her)

[HEROKU.COM](https://heroku.com)





Behind the best of the web.

Lex Neva (he/him)
Site Reliability Engineer

Hi, I'm Lex, and I used to work at Heroku with Courtney.

Now I'm a Site Reliability Engineer for Fastly. Fastly is an edge cloud platform, which means it's a super-customizable CDN that's a ton of fun to use. Fastly is also a great place to work, and we're hiring!

Goals of this Tutorial

learn how to:

- ◆ run a retrospective
- ◆ create a good emotional space for a retrospective

Lex

Your number one job when you run a retrospective is to create a safe learning environment. You want people to feel safe enough to talk about the full context behind the decisions they made, so that everyone can learn about what happened. If you want them to share the kind of information that will be really useful, folks need to have no fear of retaliation or even negative social impact.

Remember, their decisions seemed totally reasonable to them at the time, even if they seem way off-base in retrospect.



Lex

Courtney and I want to create that same kind of safe environment here, too!

- retros are tiring, and this tutorial will be too- it will involve a lot of work and potentially tense emotions
- participation is strictly optional
 - feel free to revoke your consent to participate at any time
- it's always okay to say "pass" or just flail incoherently if you don't feel comfortable talking or performing a role!
- ...but we hope you'll be able to participate!
 - Let us know if we can change anything to help you feel comfortable participating
 - We're trying for a highly interactive conversation atmosphere.
 - Feel free to ask questions whenever -- just raise your hand.
 - Also, feel free to raise your hands to answer questions posed to the room
 - It's okay to be a nerd here.
- Remember, this is your dime!
 - We're here to answer your questions and help make sure you have a good experience

Schedule

- ◆ **4:00–4:15** Introduction to Facilitation
- ◆ **4:15–5:15** Skill session: Facilitation
- ◆ **5:15–5:30** Questions

Lex

The talk schedule is going to look roughly like this, but it may vary depending on how the discussion goes.

Okay, let's get started!

tell us about you

Lex

I'm going to ask a few questions so we can tailor some of what we say to you folks in this room

Raise your hand if you're:

- a manager?
- someone who primarily does operations?
- a developer?
- a developer who carries a pager?
- any sort of person who carries a pager?
- customer support?
- if you weren't in any of those groups?
 - Okay, shout out your job title

Thanks!

Anyone:

- been in a retro?
 - a really good retro?
 - a not-so-good retro?
- ran a retro?

you have three jobs

- ◆ facilitation
- ◆ running a productive meeting
- ◆ not **screwing things up** by making
bad jokes

Lex

You have three jobs: facilitation, running a productive meeting, and not screwing things up by making bad jokes. That last one is really important!



environment

Image credit: <https://www.pexels.com/photo/landscape-mountains-nature-clouds-1029/>

Courtney

When we began this training we worked to make this a comfortable and welcoming environment

- set ground rules
- described the schedule
- Asked about you

During the training, we will

- keep things on topic
- enforce the ground rules

but before any of that, we (lex and I) prepared:

- wrote learning exercises in advance
- **Thought about what would give you the right experiences to learn from**



perceptual learning

Courtney

The most effective way to learn a skill is to experience another person doing it. This is called "perceptual learning", and Kathy Sierra gave a talk on it at O'Reilly Fluent

I'm trying to create an environment where you can learn from how Lex and I put together this tutorial

everything I'm doing today is "how to run a retrospective"- not just the things we say

job 1: facilitation

Image credit: [https://commons.wikimedia.org/wiki/
File:Tulista_-_Haworthia_minima_in_cultivation_2.jpg](https://commons.wikimedia.org/wiki/File:Tulista_-_Haworthia_minima_in_cultivation_2.jpg)



Courtney

Other ways to think of it: servant leadership, psychological safety

Your main jobs are to keep the conversation blame-free and to run a pretty good meeting



Image credit: <https://pixabay.com/en/dog-labrador-black-and-white-sad-1126025/>

Courtney

Let's talk about blame

English is a pretty blamey language
"You knocked over that vase"
"Why did you knock over the vase?"

"you"

yeah, you! I'm talking to
you! don't you just walk
away!!

Courtney

that feels awful, doesn't it?

Starting a sentence with "you" draws a line between yourself and the person you're addressing

So does using it too often

It creates an oppositional conversation- there is the person saying "you" and the person being "youd" at

"why"

why did you do that?
why did you do it LIKE that?

Courtney

that also feels terrible, doesn't it?

Asking a question that starts with "why" is a request for a justification- it immediately puts the person you're addressing on the defensive
"Why" questions get you answers in agentive language ("because I knocked it over"), which has blame in the very grammar- because a person did a thing
Agentive language is strongly remembered by English speakers, so then you've ensured that the blame sticks in everyone's minds

other things not to say to people

- ◆ always
- ◆ never
- ◆ every time
- ◆ should
- ◆ just
- ◆ only

Lex

Read

There are more but these are the least desirable words to use.

If you have a sibling, anything your sibling shouted at you when they were mad that made you see red goes on this list (or possibly your child)

It (might be) different if you're talking about an API or an RFC, but remember that when you describe the behavior of a system you are describing the decisions that people made when they built it.

- People are behind everything, even the technical bits.
- It's more upsetting if those people didn't realize quite all of the decisions they made at the time
 - We work with complex systems, and it's never possible to know everything about how they work in advance
 - ...and I just said "never", didn't I?

Okay, if you can't blame people, then how do you talk about someone screwing up? I've seen some blog posts along these lines saying "blameless retros don't work".

The idea is, you *should* talk about what people did. You just don't assign it the value

of being “wrong”.

Try to imagine a world in which the decision the person made looked absolutely correct. More on this line of thinking in a minute.



“why didn’t you just fix it the last time
this happened?”

Lex

<read the slide>

Exercise: Let’s take this apart. What do you see here?

Example Answers:

- it's happened before
 - maybe more than once
- it could be fixed the last time it happened
 - easily (this is the "just")
- "you" were the right one to fix it
- there was no good reason not to fix it



Image credit: <https://pixabay.com/en/maze-labyrinth-glendurgan-garden-511153/>

Courtney

okay so how DO we do this

We want to evoke thoughtfulness and complexity

better things to say

- ◆ how
- ◆ what
- ◆ what if
- ◆ could we
- ◆ what do you think about
- ◆ what would you have wanted to know

Courtney

All of these are designed to get more complex answers when used in a question
When asking a question, think about what you can say that will get the **longest** answer

This might be hard- in business, we sometimes get in the habit of asking questions that will get us the most concise answer possible, so you might need to practice asking questions that elicit complex answers

This is a creative process, both for you and for the people participating- one of the things you're trying to do is **imagine a better world**

Miller's Law

“

In order to understand what another person is saying, you must assume it is true and try to imagine what it could be true of.

—George Armitage Miller

Lex

<read quote>

This is how to understand the complex answer when you get it
George Armitage Miller (also the guy who theorized that seven is the magic number of things you can put in short-term memory)

This is THE KEY to understanding systems, and people who have different perspectives and experiences

This is how you can begin to understand why things are the way they are in any context, but especially one that's not yours

Courtney learned about this from Suzette Haden Elgin, in The Gentle Art of Verbal Self-Defense



"the sky is green"

Lex

"The sky is green"

This seems ridiculous.

Exercise: What can you think of that would make it true?



Image credit: <https://pixabay.com/en/aurora-borealis-night-818716/>

Lex

colored glasses

looking at a photo or painting where this is literally true

hurricane

sunset/sunrise

talking lyrically about a tree canopy

colored windows

mayyybe color vision issues

aurora!



people don't do things for no reason

Lex

Just like people say things that are true even if they seem impossible, people always have reasons for what they do that make sense within the context they perceive

Even if it seems completely off-base in retrospect, they have a reason that makes sense given how the world looks at the moment

The purpose of a retrospective is to understand that context as they perceived it so that you can fully embrace how their decisions made sense to them at the time.

let's talk disasters

who doesn't like a good
disaster?

Courtney

Now let's go over a real life failure and practice these skills



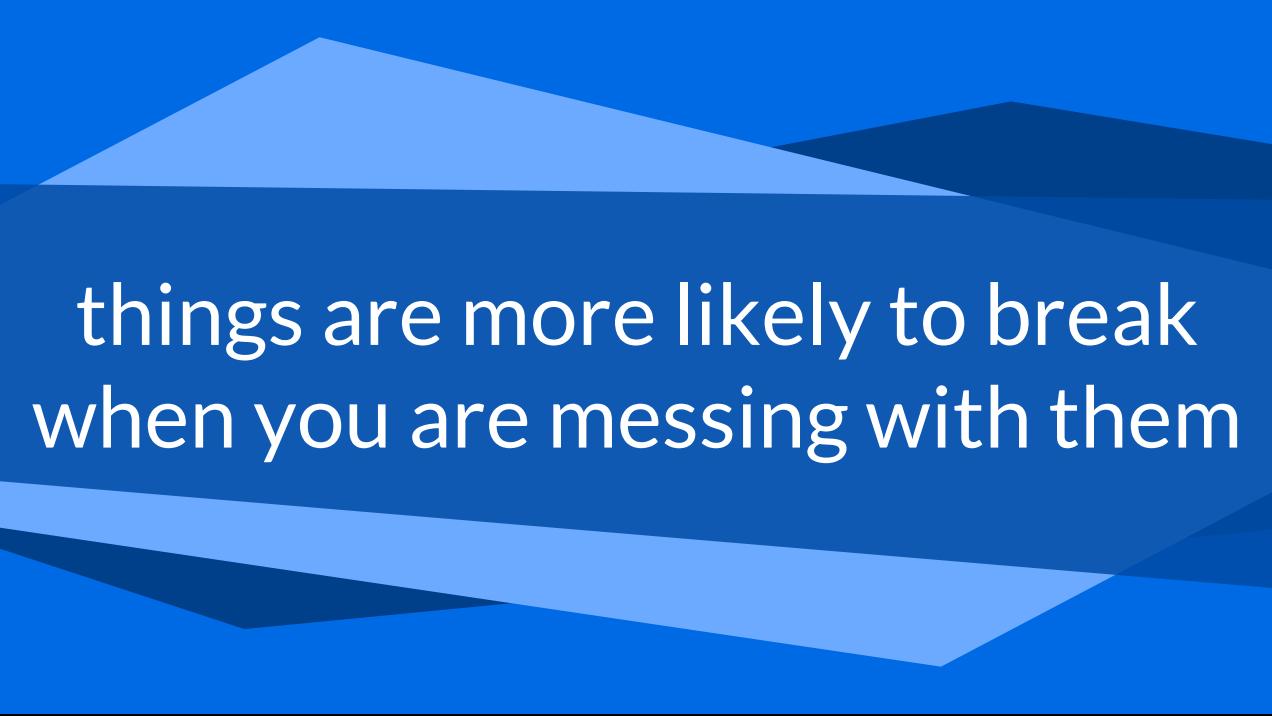
Image credit: <http://www.wsdot.wa.gov/Projects/SR520Bridge/Photos/Damage.htm>

Courtney

Seattle has the two longest floating bridges in the world, and in 1990 one of them sank over Thanksgiving day weekend, in a storm, while it was being repurposed.

The public reporting to this day is extremely simplistic, but the official investigation found that there were five factors involved and all of them were required for the bridge to fail.

Hydrodemolition
water storage and trucking
one pontoon sank first and dragged 7 more down after it



things are more likely to break
when you are messing with them

Courtney



Courtney

Stop at 3:48



no one does things they think
will blow up the world

Courtney

People do the best they can with what they know and the resources they have
Asking about what a person knew and what the conditions were will give good insight
for effective change.

What sorts of things might have happened here that seemed sensible at the time?

[workshop]

Complex Failures

“

The loads that created significant leakage were the combined effects of all accumulations of water, including rain after the wind storm, longitudinal flow on the surface of the bridge, and pumping through Nov. 24, 1990. These loads caused static moments [...] that exceeded the threshold for leakage. [E]xisting cracks were open[ed] sufficiently to allow water to leak into the pontoon. Progressive and accelerating sinking began at this time.

—Dusenberry, D., Zarghami, M., Liepins, A., Luft, R., and Kan, F. (1995). "Failure of Lacey V. Murrow Floating Bridge, Seattle, Washington." *J. Perform. Constr. Facil.*, 9(1), 4–23.

Courtney

The official analysis

“The loads that created significant leakage were the combined effects of all accumulations of water, including rain after the wind storm, longitudinal flow on the surface of the bridge, and pumping through Nov. 24, 1990. These loads caused static moments [...] that exceeded the threshold for leakage. [E]xisting cracks were open[ed] sufficiently to allow water to leak into the pontoon. Progressive and accelerating sinking began at this time.”

this was almost a good retrospective

Courtney

But the official investigation missed something huge- the crews were having trouble keeping up with the pumping schedule set by the engineers and we will never know why that was.

The human factors weren't explored in the investigation- or if they were, that exploration wasn't documented

We just lead you through understanding things that seemed like mistakes at the time, and talking about how they weren't, so you've experienced some of what we want to get out of a retrospective- that perspective shift

Conway's Law

“

organizations which design systems ... are constrained to produce designs which are copies of the communication structures of these organizations

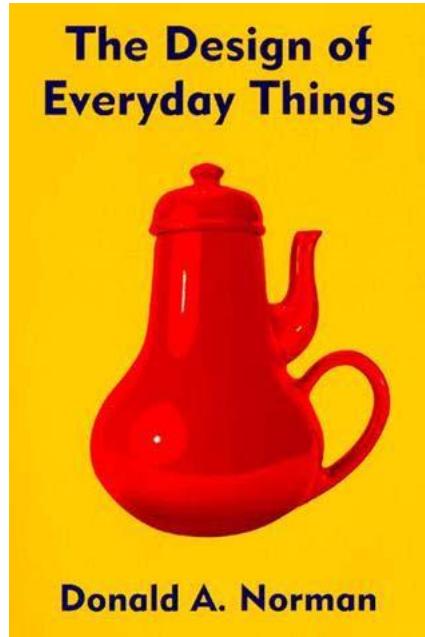
—Melvin Conway, 1968

Lex

<read quote>

your retrospectives are PART of the communication structures of the organization which produces the system you're running

it's turtles all the way down, folks



Lex

Humans created everything in your infrastructure, which means all problems are people problems. Literally everything that exists is the way it is because of a human making a decision (or many decisions)

This means nothing is immutable (even though some things are stuck)

It means that understanding the decisions that came before is how you make things better

let's talk about running a meeting

aka "job 2"

Lex

Let's talk about your second job: running a productive meeting.

There are lots of resources out there for running a good meeting- a bewildering array
We're going to talk about some general points that dovetail with retrospective
facilitation

select a notetaker

Lex

You need someone who is explicitly responsible for taking notes
if you don't write down something in a retrospective, it didn't happen

If you have enough people, having a notetaker who wasn't involved in the incident is ideal

make sure it is not always the same people

lots of groups fall into having the same few people take notes in every meeting,
because those people are "good at it"

those people **never get to participate as much as everyone else**
this also allows other people never to get good at it

When you ask for a volunteer to take notes, get comfortable with a really
uncomfortable silence

If one of the handful of usual people caves first, **turn them down** and tell the group
that it's someone else's turn

if you have to draft someone, draft a person who does it rarely

stay on time and on topic

Lex

having an agenda, sticking to it, and staying on time is important

- helps keep you from missing things by running out of time
- lets participants know what you'll cover and when
- helps participants stay with the group
 - people who are lost feel self-conscious and are less comfortable engaging
- digressions can be boring for the group or inhibit participation, especially if one person is filibustering or has a hobby horse.
- staying on track helps make sure everyone stays engaged

You may want to pick someone to keep time. Use the same rules as for picking a notetaker.



active listening

Courtney

When a person is speaking, look at them! Whether it's on a video call or in person, let them know with your body language that you are paying attention and that you find their contributions valuable. This will encourage everyone to take their turn speaking

- make eye contact
- lean forward a little
- nod and make responsive facial expressions
- say "yeah" or "wow"
- when they're finished speaking (don't interrupt!), rephrase what they said briefly or say a few words of agreement
- don't overdo it, this is an OR list, not an AND list
- think about how you feel when something really interesting is happening, and try to make that feeling exist in your face and body
- this is why the facilitator shouldn't be the one taking notes



tell your neighbor what you're doing at
work that interests you

Courtney

exercise: everyone turn to the person next to you and tell them something you did recently at work that you find interesting, in about three sentences. Person who is listening practices being engaged. Then switch places.

Ask how that felt



who's talking? who isn't?

Lex

as the facilitator, one of your jobs is to make sure that everyone gets a chance to speak, even if they have nothing to say

don't assume that just because a person is silent, it means they have nothing to say

- they may be shy or having a hard time interjecting

keep an eye on the participants to see who might want to speak but be afraid to interrupt

things to watch for:

- wiggling
- leaning forward
- licking lips
- biting lips
- waving their hand
- lips pursed as if ready to speak
- frowning/nodding/other engaged facial expressions
- Briefly unmuting and then muting their mic on a call

Take time to stop the discussion and ask people who have been silent whether they have anything to say, by name

- do this part-way through and at the end if you can

practice interrupting

Courtney

as a facilitator, you'll need to learn how to interrupt individuals for the good of the group and the meeting

it's necessary when people start to rant, complain, blame, or get off topic
this can be super uncomfortable!

remind yourself that **you can't achieve the goals of the retro if this goes unchecked**

the best way to practice is to think about a time you experienced when someone needed to be interrupted and they weren't. Remember how unpleasant and frustrating the result was! Then imagine yourself saying "thanks, Lex, but we're really far afield and we need to come back to the point"

or "everyone working this incident did the best they could, and we're here to figure out what we need to know to help things go better next time"

or even "wait a minute please" to give yourself time to think

Do this gently but firmly- the person you are interrupting will probably even feel good about it in the end

billing incident story

let's talk about humor

job 3: not screwing this part up

Lex

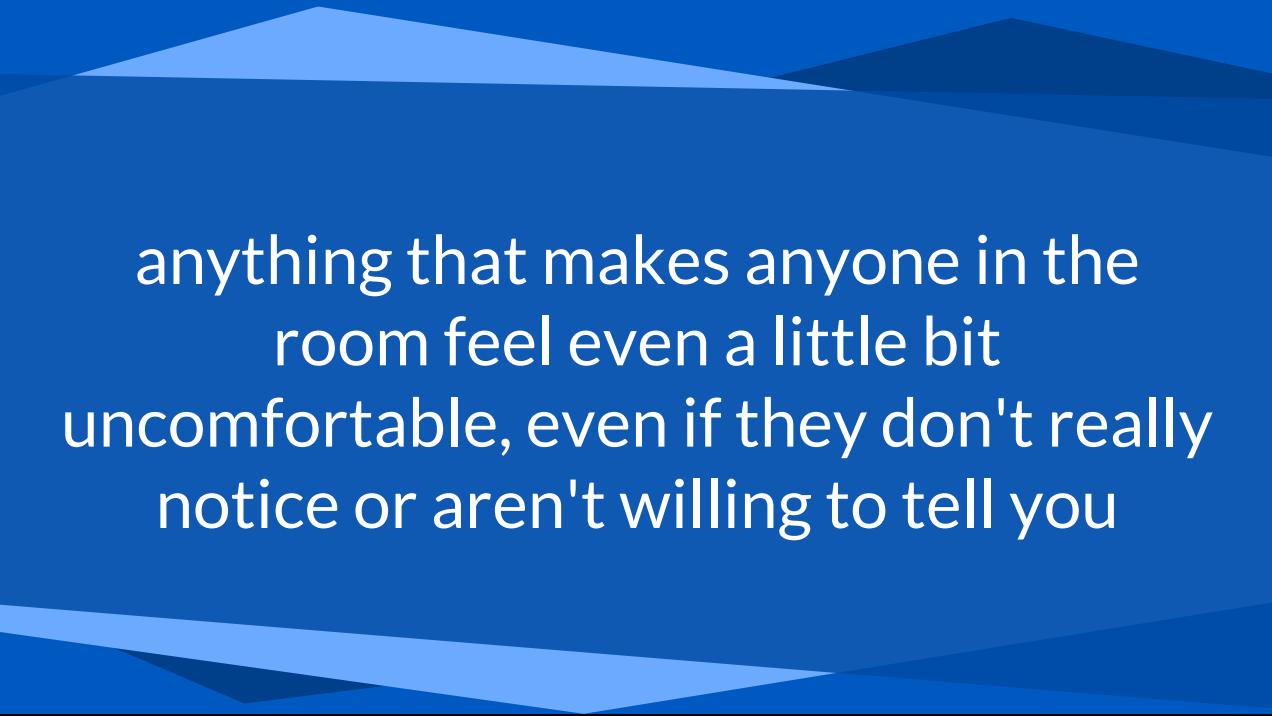
Job 3: dealing with jokes

It is really really easy to mess up when making jokes in a retro

You may have heard the saying "comedy is tragedy plus time". In a retro there has **not been enough time**.

Furthermore, someone (maybe everyone) in that retro feels like they screwed up and cost the company money and their teammates' time (and maybe sleep), and made everyone present have yet another meeting

And probably their manager is there too



anything that makes anyone in the room feel even a little bit uncomfortable, even if they don't really notice or aren't willing to tell you

Courtney

getting it wrong means "anything that makes anyone in the room feel even a little bit uncomfortable, even if they don't really notice it or won't admit it to you"

some bad jokes

- ◆ anything your parents say when they're mad or they think you haven't come home recently enough
- ◆ anything you say back to them
- ◆ anything a manager or other employee ever said to you that made you feel bad
- ◆ anything you ever said to a coworker that made them laugh uncomfortably or wince
- ◆ jokes about getting fired or firing people
- ◆ politics
- ◆ religion
- ◆ current events

Courtney

Read

Then Lex's anecdote:

- in my family, we have a rule that we made for me: **jokes aren't funny**
- in an argument, I have a habit of trying to diffuse tension by making jokes that diffuses *my* tension but makes everyone else feel like I don't care about their feelings

things I shouldn't have to mention

- ◆ race
- ◆ gender
- ◆ sexuality
- ◆ fat jokes
- ◆ jokes about disabilities
- ◆ "crazy"
- ◆ jokes about any one person or their decisions or their wisdom or their plans or their face

Courtney

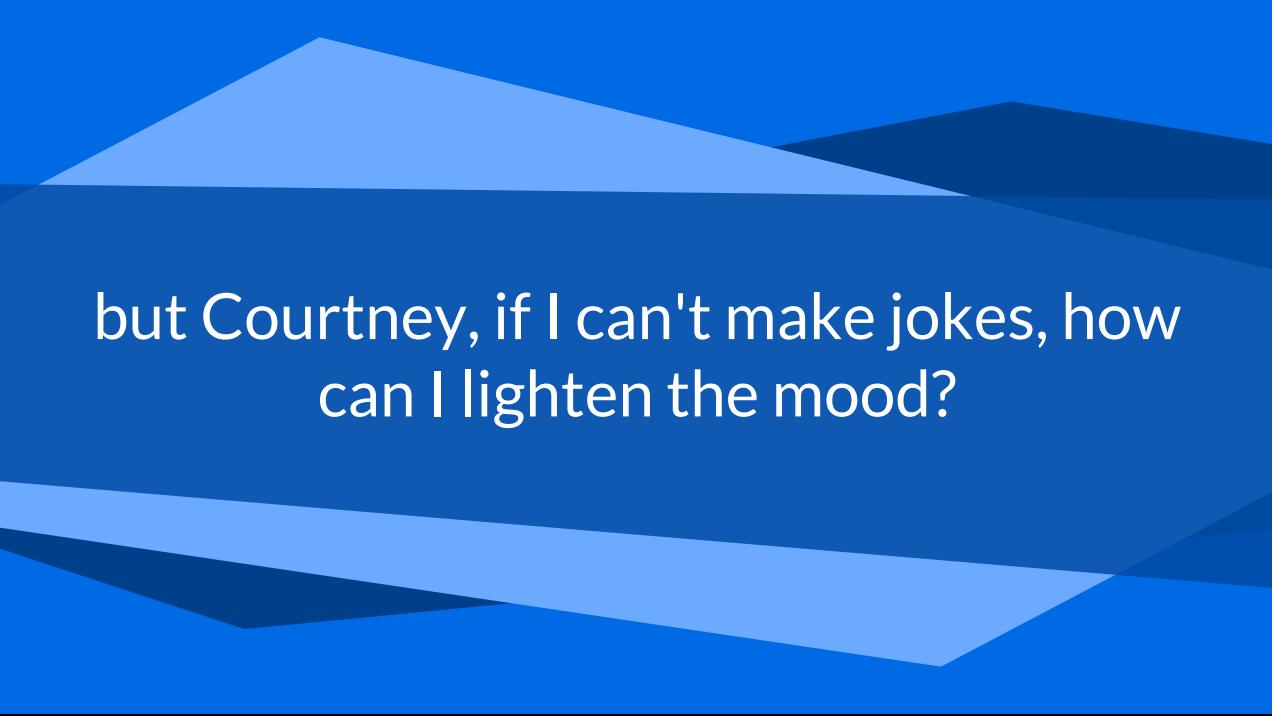
you can probably make jokes about

- ◆ murphy's law
- ◆ entropy
- ◆ the general terribleness of computers
- ◆ the terribleness of getting paged
- ◆ being utterly serious about silly things ("Las Vegas, colloquially known as 'fabulous'")
- ◆ MAYBE you can joke WITH a person about something they are proud of about themselves

Courtney

If you knew that I liked making jokes about myself as "the girl with her hair on fire", you could probably make that joke and it would be okay

If you DIDN'T know that I made that joke myself, you should not do it, because in that case no one can be sure that you mean it in a flattering way



but Courtney, if I can't make jokes, how
can I lighten the mood?

Courtney

- you can be kind
- you can be thoughtful
- you can be caring
- you can call out successes
- you can thank someone for their honesty

you can be warm and caring



Image credit: <https://pixabay.com/en/danger-cliff-edge-sign-warning-851895/>

Lex

what about when things go wrong?

what do you do when other people blame or make bad jokes? what about when you make a mistake?



if you mess up

Lex

if you make a bad joke or accidentally say something blamey or you can tell you've made someone uncomfortable

apologize, correct yourself and move on
it's important to be sincere but matter-of-fact
wallowing is self-blame and it's uncomfortable, time-consuming, and part of what you're trying to avoid



you don't have to be witty

Courtney

If someone else messes up, you don't have to be witty
don't try to be clever, don't try to make a joke yourself
you don't need to one-up anyone or "win"
your goal is to remind people of the ground rules and why we're here

If they ask a blaming question, gently remind them that we're trying to avoid blame
and help them rephrase the question



“why didn’t you just fix it the
last time this happened”

Lex

<read slide>

Exercise: how can we rephrase this?

Example:

"i think I remember hearing about this in a previous retrospective, is that right? Do you know why we couldn't fix it last time?"

"please don't make jokes like that in a retrospective"

Courtney

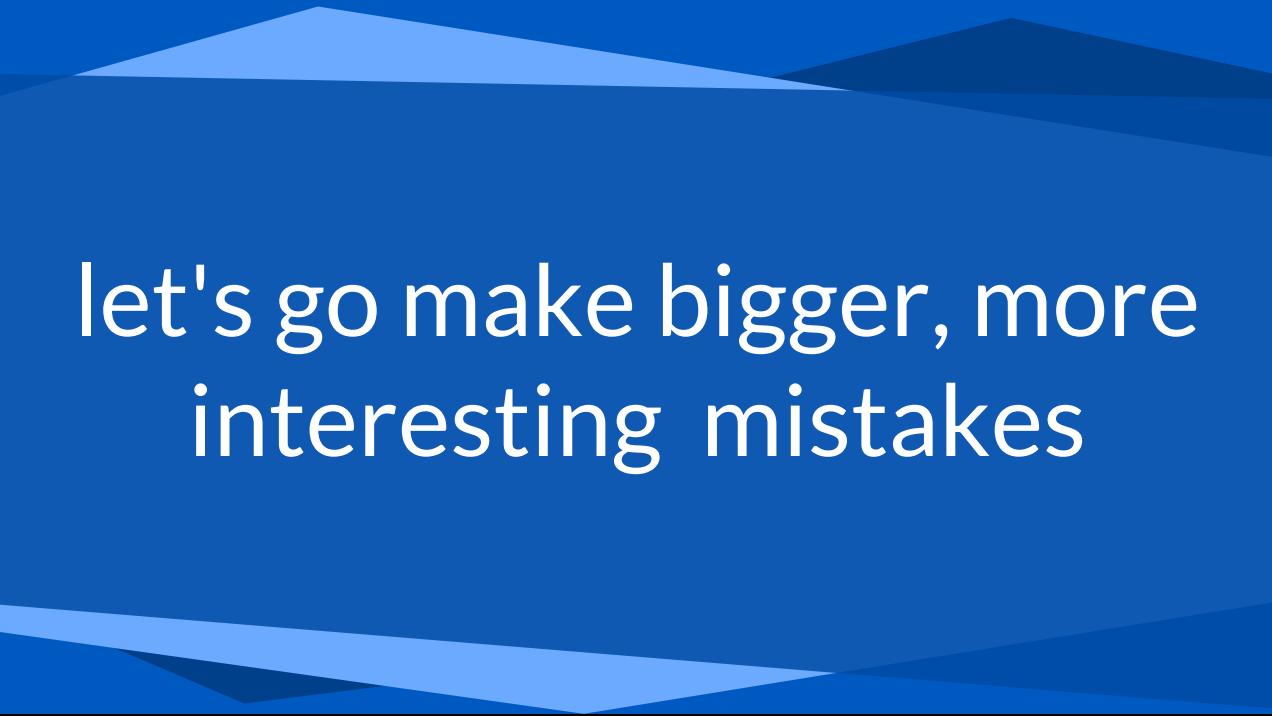
This is all you have to say if someone makes a bad joke.
during the retro is NOT the time to try to have a teachable moment or stage an intervention; you don't need to convince anyone of anything, you just need them to stop as quickly as possible so the group can move on

If their joke is something like "I fat-fingered it", where they are blaming themselves, you can say gently say "retrospectives are blameless, and that includes not blaming ourselves" or you can just ask they not make a joke like that in a retro.

Lex

During an incident at Heroku, one of our engineers joined the Hangout with a caption under his face, "The Root Cause". We all had little laugh, but then I addressed the fact that we try not to make jokes like that. Even though he didn't mean it in a self-blaming way, I didn't want others to feel like blame was on the table.

Once you've gotten folks to stop making jokes and the group has moved on, do NOT bring it up outside the retro! as far as you are concerned, the issue is addressed and done. If they come to you and ask why it was inappropriate, you can explain if you feel like you want to, or just reiterate that it's inappropriate for a retro.



let's go make bigger, more
interesting mistakes

Courtney

Thanks from Courtney

Suzette Haden Elgin, for teaching me about language

Kathy Sierra, for teaching me about learning

John Allspaw, for teaching me about the pitfalls of "why"

And all of these people for helping me learn how to teach:

The Ally Skills Training, developed by the Ada Initiative and offered by Frame Shift Consulting

Stephanie Pearl-McPhee

Franklin Habit

Marc Mancuso

Thanks from Lex

John Allspaw for teaching me about the importance of creating a learning environment
Courtney for helping me learn all of this and mature as an engineer

Authors of articles I read and share in SRE Weekly
SlidesCarnival.com for slide theme inspiration

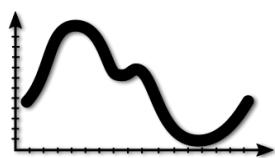
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Questions?



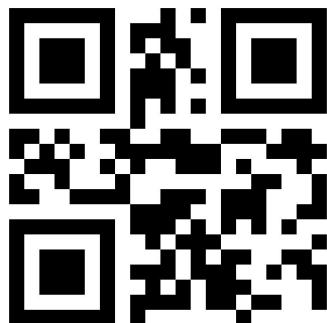
Thanks for listening <3

Courtney Eckhardt @hashoctothorpe
Lex Neva @SREWeekly



SRE WEEKLY

scalability, availability, incident response, automation



BTW, I run SRE Weekly as a side project. Each issue has awesome SRE-related articles I've come across. As a note, SRE Weekly is my personal project and is not associated with my employer, Fastly.