

1. “God created the world in 7 days and we haven’t seen much of him since.” (God draws θ from an urn and then is out of the picture)
2. “People don’t go around introducing you to their ex-wives.” (why model improvement doesn’t make it into papers)
3. “The confidence interval can exclude 0, in which case I can submit it to a really good journal, or it can include 0, in which case I can look really hard and throw out some bad data points.” (an example of decision analysis)
4. “It would be cool even for people who aren’t blind. I would use it. Just because blind people can do it . . . I’m not too proud.” (on joysticks as a tool for blind people to do statistics)
5. “I’ll get rid of the well-perfused tissues, get rid of the poorly-perfused tissues. All you are is just liver and fat. Probably true for some of you.”
6. “Statistics is said to be the science of defaults. One of our challenges is to defaultize things.”
7. “In my head I have these simulations of Don Rubin and Jennifer Hill running on a loop. ‘What would Jennifer do? What would Don say?’”
8. “This guy comes to me and says ‘I have prior information and data, and I’d like to combine them, and I heard Bayes is a good way to do that.’ Well, that’s as good as it gets! Normally you want to do Bayes but they won’t let you because they’re like [in stupid voice] ‘ugh, it’s subjective, I’m not allowed to, it’s subjective.’ But here this guy is saying ‘I have prior information and data and I want to combine them’! I’m like, ‘I can do that! I was *trained* to do that!’”
9. “In statistics it’s enough for our results to be cool. In psychology they’re supposed to be *correct*. In economics they’re supposed to be correct and consistent with your ideology.”
10. “We need all g of these things. Any f of them would not be enough.” (on a lettered list with seven items)
11. “Sometimes classical statistics gives up. Bayes never gives up . . . so we’re under more responsibility to check our models.”
12. “You have to want to falsify the model. If you love somebody, set them free.”
13. We could call Bayesian data analysis “statistics using conditional probability”, “but that wouldn’t put the butts in the seats.”
14. “Xiao-Li thinks our notation is better. The *dean* thinks our notation is better.”
15. “NO, it’s inside the exp, you can’t touch that.”
16. (models without warning lights) “There are two types of models. Good models, if they don’t fit, you get a large standard error. Bad models, if the model doesn’t fit, it goes . . . [deep voice] ‘No problem. I have a *great* compromise for you.’”
17. “As you know from teaching introductory statistics, 30 is infinity.”
18. “It rejects everything, okay? The χ^2 acceptance region is the *goddamn empty set*.”
19. “We can imagine there’s some sort of thetabase.” (on the notion of the true prior)

20. More boys are born than girls to compensate for the fact that at any age, boys die more than girls. So 55% are boys at the embryo stage, and then we reach an equal sex ratio at age 20, “which I’m told is convenient, and then eventually you’ve got grandma by herself . . .”
21. “You can’t die twice of something. It’s double jeopardy.”
22. “You weren’t supposed to be particularly Bayesian here, except in the sense that anything reasonable is Bayesian.” (on the last problem of hw 2)
23. “Women are making more than men. That’s wrong! Oh wait.” (statistically significant regression coefficients of an unexpected sign indicate an interaction term is missing)
24. “Suppose there’s someone you want to get to know better, but you have to talk to all her friends too. They’re like the nuisance parameters.”
25. “Can you forget the last five minutes? Thanks. Including the part where I said to forget the last five minutes.”
26. “Why is it Normal? Because that’s the only continuous multivariate distribution we have. Oh, we have the multivariate t . . . as if that’s a different distribution.”
27. “This is a paper we have, that’s making the rounds of getting rejected.”
28. “It’s like the joint distribution is a movie, and all you care about is the star, like Robert Downey Jr. or whatever.”
29. “It’s like you have a big network of variables, and you grab the one you care about, and you shake it and shake it.”
30. “Well, of course there’s a reason—it’s not like the baby doesn’t want to come out.” (on birthday frequencies)
31. “In cage 1, they all die, and then in cage 2 they all hear about it, and they’re like, ‘Don’t eat that shit, man.’” (violation of independence assumption in rats data)
32. “If your height is 0, you’re not going to make any money.” (intercept terms should be meaningful)
33. “We economized. People died. And we didn’t even save money!” (incremental cost effectiveness ratio)
34. “Raise your hand if you haven’t heard this principle before. Hey, you heard a new principle!”
35. “I called them and they told me to fuck off, basically.” (on trying to get the chicken brain data)
36. “Having the index convey information is like having the lamp hang from the wire. You don’t want to use an electrical connection as a mechanical connection.”
37. “Exchangeability is a function not just of reality, but of the information you have.”
38. Center your time predictor; otherwise the intercept “will be the logit probability of death in the year that Jesus was born.”
39. “The Alexes said you guys had a lot of bad models. They blamed themselves. And I blame them too.”

40. “It’s not like the door is open. It’s like where is the door? I can’t even see the wall! Maybe this describes most of my research.”
41. “If I’m doing an experiment to save the world, I better use my prior.”
42. “In the grand scheme of things, the kitten is already dead.” (all models are wrong)
43. “But you don’t have to be Georg Cantor to know there’s always some model that’s not in your super-model.” (on limitations of super-Bayes)
44. “Inference is not the inverse of a hypothesis test.”
45. “I hope she’s plugging my work in her classes!” (after describing Jennifer’s work on causal inference)
46. (on priors) “They don’t have to be weakly informative. They can just be shitty.”
47. “You can’t stand on the beach of the sea of uncertainty with the waves lapping at your ankles. You have to jump into the sea and stick your head underwater and blow some bubbles.”
48. “*Learn*—that’s a trendy word.”
49. “Inference is normal science. Model-checking is revolutionary science.”
50. “Why is this chapter different from all other chapters?” (modeling accounting for data collection)
51. “Whites, . . . , blacks, Hispanics, and most of the people in this room.” (reading the race categories on a graph)
52. “You guys in the back probably think I play to the front row because they laugh at my jokes. But you all could have sat in the front row instead of row 14 or whatever! You don’t have to show your kiddy card!”
53. “Maybe we think there’s nothing going on because it’s education research.” (prior beliefs about treatment effects)
54. “It’s so great when you guys laugh—it’s like blood to a vampire!”
55. “This is a textbook way too. It’s just my textbook.”
56. “Survey weights are like McDonald’s chicken nuggets—you don’t know what goes into them.”
57. “It’s okay to let that thing be zero because it’s gettin’ exp’d.”
58. “Before you do anything, you gotta take the . . . you gotta take the . . .” [draws a hangman with three letters for L-O-G]
59. “You take the log so fast that you don’t even see the actual data. Plus you take the log because you can, because they’re all positive.”
60. “Mathematics and computer science are the only two rigorous things left in this society.”
61. “Rubin calls this ‘sampling importance resampling’, which is silly because once you say resampling, you must have sampled already. It’s like you say e_4 . You don’t say e_2 to e_4 because of course it was at e_2 , it’s not like it was at e_3 ! [beat] I guess e_4 is old-fashioned nowadays. I guess I should do something like g_3 .”
62. “If someone’s going to be unfairly attacked, I’d rather it not be me.”

63. “Because cubicity is closed under addition—doesn’t that sound good?”
64. “Tensor products, which are some sort of product. . . of tensors, I believe.”
65. “Sergiy seems like a more serious lecturer, which is good, you get the soft jokes now and then next semester it’s time to learn some shit.”
66. “You’re not going to go to heaven because you only needed two.” (on the number of mixture components to include)
67. “I’ve never done it. I just read about it in my own book.”
68. (Someone asks how to compare models. Gelman writes in giant letters: OUT OF SAMPLE PREDICTION ERROR.) “So there’s that.”
69. “Better to have analyzed and lost than never to have analyzed the data at all.”
70. “Hierarchical models: just like what you did before, but the standard errors are a little bit fatter.”
71. “Political scientists have no pride. They’ll use anything that works. Or doesn’t work—it’s not like they would know.”
72. “You take what someone is doing and pretend they’re being Bayesian.”
73. “The full name of theoretical statistics is the theory of applied statistics.”
74. “Statistics is applied statistics.”
75. “The gambler’s ruin problem, that’s a theory about what happens when you’re a gambler.”
76. “Like he advocated plotting a rootogram instead of a histogram. You take the square root of the counts, because if the counts follow a Poisson and you . . . [gasps, covers mouth] oops, I said Poisson!” (Tukey covers his tracks so you only see the procedure, not the model)
77. “A Bayesian version will usually make things better.”