

DANA FOUNDATION

*News and views on what's happening in the world of brain science, neuroethics,
and education from the Dana Foundation*

Alda Crushes It

As editor of [Cerebrum](#), the online neuroscience journal for [The Dana Foundation](#), a primary function of my role is to invite some of the world's top neuroscientists to write an article (with citations) to explain the latest developments in their specialty areas to lay readers. If they agree to the assignment, I encourage them to use conversational language, anecdotes, storytelling, and their own voice in communicating what are often complex and hard-to-explain topics: tau protein, grid cells, circadian rhythm, and stem cells—to name just a few. Sometimes they get it; more often they do not.



Best known for *M*A*S*H*, Alan Alda has also appeared in 48 films, on Broadway, and written two books. Photo credit: Eileen Barroso, Columbia University

That's a huge part of the reason I was so captivated by Alan Alda's recent lecture at Columbia University, who is on a mission to make science as assessable to the public as baseball or bacon. The event, entitled "Getting Behind a Blind Date with Science," was co-sponsored by Dana and the Kavli Foundation, with introductory remarks by Nobel laureate Eric Kandel, Ph.D., co-director of the university's [Zuckerman Mind Brain Behavior Institute](#).

How does an actor best known as Hawkeye Pierce in *M.A.S.H.*, one of the most successful series in television history, become a pitchman for science communications—someone who has gone so far as to co-found his own center for [science communication at](#)

[Stony Brook University](#)? Alda, who encountered his share of medical jargon in playing a physician in 251 episodes of *M.A.S.H.*, was inspired by his time as host of *Scientific American Frontiers*, a PBS program that

explored any number of topics, often in exotic locations. Before a guest appeared on camera, Alda would ask them to explain their research to him. "It was a warm connection we had, and

that later played on screen,” he said. “The idea was that, if I understood it, then the audience would understand it, because I was getting it step by step.”

Alda recalled one scientist who was doing a great job explaining her research to him, until she realized that the camera was on. “Immediately, the tone of her voice changed, she got stiffer, and her terminology was unintelligible,” he said. “I coxed her back with a few questions. But overall, I was relentless. If I didn’t know what they (the scientists) were talking about, I wouldn’t give up until I understood it.”

Alda, a master storyteller who used humor and brought audience members on stage to demonstrate human interaction, compared science communication to blind dates and three stages of love: attraction, infatuation, and commitment. “We want the public to be in love with science, to make a commitment to science, to experience joy when they hear a talk.” But much like a person on a blind date, he or she needs to be first convinced that they trust the person in front of them.

Attraction takes place in the first two or three minutes, he believes, and body language and tone of voice are far more important than actual words when giving a presentation. For the scientists in attendance, he pleaded that they stop hiding behind lecterns, look directly at their audiences, and avoid reading slides and using technical jargon.

Infatuation mostly aligns with memory, he suggested, and what sparks memory are emotional cues. “Scientific talks should include the kind of language that will help people remember and relate to the subject matter,” he said. “I’m not saying don’t tell the truth or make anything up; just tell it in the most interesting way possible.”

He compared commitment to good listening skills. Figure out what the other person is thinking, he advised. “I have to, in a way, read your mind to know if I left you behind, or if I’m boring you.” He likened it to good writing: “If I put this sentence down on the page, will that prepare them for this next thing? Will they be able to follow my train of thought?”

Alda suggested that communication courses be incorporated into graduate school curriculums so that teaching assistants and future scientists will be more equipped to talk in a personal way about their research. He said his center is already affiliated with nine universities and medical schools, and hoped one day that Columbia would be among them. He has found that his center’s course on improvisation to be particularly valuable in making students more comfortable in communicating research.

At times, Alda sounded like Abe Lincoln reciting the Gettysburg Address for science communication. At one point, his passion spilled out with: “We need this; the whole country, the whole culture, the whole world needs this. Not only do we need the public to be excited by

science and to not raise objections that are unfounded, but to raise good questions....We need scientists to go to Congress and get funding for their research, and for the people sitting there to understand what is being said.”

He ended with a self-effacing story about walking down a path on vacation with his grandson. Coming across a strange looking tree, his grandson asked for an explanation, and they spent the next 45 minutes sitting by its side and talking about evolution. The next day, his grandson asked his cousin a question while swimming, and the cousin said it sounded like a science question. “Why don’t you ask grandpa” she suggested. Said the grandson, “I’m not making that mistake again!”

— Bill Glovin