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Alda Addresses Brookhaven Lab Researchers On The Fine Art Of Speaking Passionately About Science

by Jerry Cimisi

Bringing his message of "Communicating Science," Alan Alda addresses an audience of scientists at Brookhaven National Laboratory. ***Photos by Roger Stoutenburgh, courtesy Brookhaven National Laboratory***

Brookhaven - If Alda's contribution to the collective psyche began as the sardonic Hawkeye Pierce, forever piercing the bureaucracy of the military and the absurdities of war, the second, distinct phase of the actor's career began with his very integral involvement in *Scientific American Frontiers* and continues with *The Human Spark*, a PBS series in which Alda engages scientists in the field in a fascinating debate, seeking to pinpoint the essence of what makes humans human.

On a recent rainy April morning, the discussion at Brookhaven National Laboratory's Berkner Hall drew a larger crowd than usual thanks to Alda's participation. It is Alda's approach to rend

the veil of science as a distant and incomprehensible endeavor and translate it into a fascinating and very human search for the answers to the mystery of consciousness.

Doon Gibbs, the lab's Deputy Director of Science and Technology, opens the proceedings. "The fun of being a scientist, aside from discovery, is talking about it."

The topic of the day-long seminar was “Communicating Science," a program based at Stony Brook University and augmented by Long Island's prime laboratories, BNL and Cold Spring Harbor. Its aim is to confront the problems scientists have in communicating their work to the public.

Brookhaven Lab's Deputy Director for Science and Technology, Doon Gibbs, began the morning, saying, “We ask some of the most compelling and interesting questions at BNL," adding that “the fun in being a scientist, aside from discovery, is talking about it."

Introducing Alan Alda, Gibbs remarked that the actor had won “five Emmy Awards in his eleven years with M*A*S*H."

“Six!" Alda shot out from the first row.

Laughing, Doon said, “Well, we always want to be accurate."

Turning the microphone over to Alda, an engaging speaker even without a tv script, enthusiasm beamed through his opening remarks as he admitted, “This is really a treat. When I was a kid, I loved science. I was kind of an amateur inventor. But it really took me a long time to learn the language of science; I did it by reading Scientific American every month."

Speaking to the audience of mainly scientists, Alda explained, “I was of that era when C.P. Snow was writing about the split between science and art. If you were interested in the arts you couldn't be interested in science, and if you interested in science you couldn't be interested in the arts."

Living proof of the fallacy of that parochial thinking, when first approached about hosting Scientific American Frontiers, Alda assumed that his role would be to “come on with an introduction, then read some narration from behind the scenes when . I said I would be interested only if I could talk directly to scientists on camera. Of course the producers would be talking a chance; they didn't know what these conversations would be like."

Alda's vision was to get scientists to “drop the jargon and communicate." It wasn't about trying to “dumb down science." On the other hand, “I had to understand it," he posed. Alda's contagious interest in the quest for learning what makes humans tick and his very human communication style led to scenes in which the actor turned interviewer grabbed one scientist “by both cheeks and saying, 'I don't get it!'" And poetically, as is often found in the world of scientific reasoning, while on a bus visiting a scientist in China, the scientist pressed Alda to defend his own point the exact same way.

“I think most of our culture has a blind date with science," Alda suggested. The three components of that blind date: the first moments of being attracted or not (read: lust); as the attraction progresses, enter the second stage: emotion. And the final stage -- commitment, as Alda put it, “Recognizing the value of the other—and then you really have to listen to somebody."

One of the panelists, BNL chemist Joanna Fowler, received the National Medal of Science from President Obama last year. She remarked, "It is important to respect the public; people appreciate when you take the time and explain what you are doing." ***Photo courtesy Brookhaven Laboratory***

For scientists, their blind date with the public is to realize that when communicating with non-scientists, they “should converse, and not slip into lecture mode."

Alda related that one scientist on *Scientific American Frontiers* kept switching from conversation to lecture mode -- "She went from talking to me to talking to the camera and her whole tone and aspect changed. I had to keep drawing her back to conversation."

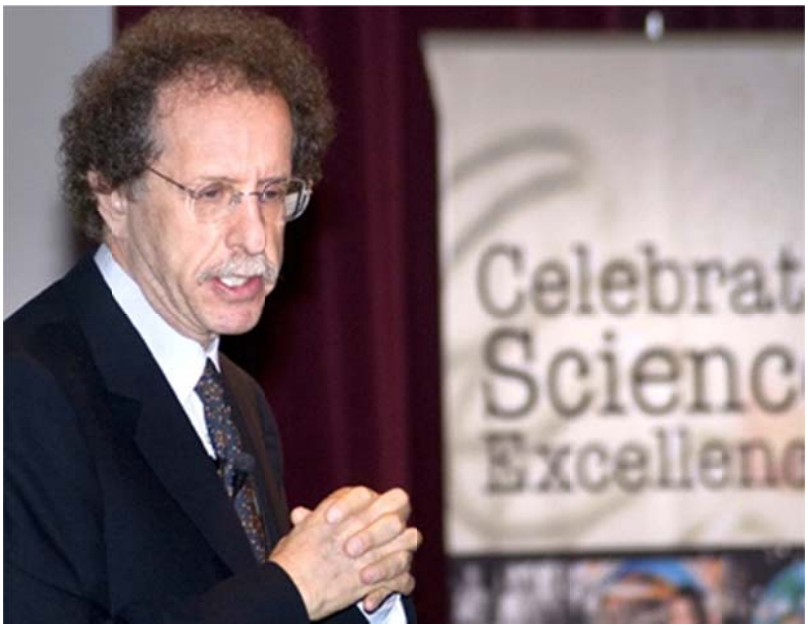
The trigger point of the second part of the proverbial “blind date" calls for scientists to engage in the emotion of discovery. “Any event that creates emotion in us engenders remembrance," said Alda. “Science needs to convey the emotion of its work. Its involvement in solving mystery."

Which brings us to commitment -- recognizing the value of the other. Alda relayed the inspiration for *The Human Spark* saying, “The theme behind it is what makes us human. A mother chimpanzee will be digging into a hole in a log with a twig, trying to get insects; the baby chimp will be watching over her shoulder. But humans usually teach face to face. We say, 'This is how it's done.'

“So if we can only talk to each other, with emotion, face to face, we will all excite curiosity, and make this blind date with science turn into love," he mused.

Howard Schneider, a former editor at *Newsday*, current dean of Stony Brook School of Journalism and one of the founders the Center for Communicating Science, was as comfortable a

speaker as Alda in introducing the panel for “Who Cares What the Public Thinks About Science?"



Stony Brook School of Journalism Dean Howard Schneider, one of the founders for the school's Center for Communicating Science, says, "Communicating science is a core requirement in the 21st century."

Communicating science is a core requirement in the 21st century," Schneider asserted. What, he asked the panel, are some of the fundamental reasons for the gap between science and the public?

Cornelia Dean, former science editor of *The New York Times* and author of *Am I Making Myself Clear?*, reported “Eighty-five percent of scientists say that the public lacks a basic scientific understanding." Dean did not blame the educational system as much as the public's lack of interest in finding out the technical facts. "Unless you're very young, there was nothing taught, for instance, about the issues of stem cells when you were in school."

“The reason for this gap comes at any early age," Earl Lane, a former science writer for *Newsday* and the senior communications officer for the American Association for Advancement of Science, countered. He estimated education should be directed to have students, in school and then later in life, explore the science issues of the day.

"Most of what we do is hard to communicate," Brookhaven Lab's Director of Radiotracer Chemistry, Instrumentation and Biological Imaging Program, Joanna Fowler said. Although she has usually had amiable dealings with the press, adding that “it is important to respect the public," she went on to say people "appreciate when you take the time and explain what you are doing." (In 2009 Fowler, whose work concerns the brain chemistry of addiction was awarded the National Medal of Science.)

" Polls show three quarters of the public trust scientists—that's almost twice as high as journalists," science writer Lane inserted

Noting a shift in the perception of the role of scientists, David Conover, dean of Marine and Atmospheric Sciences at Stony Brook, remarked that there is more acceptance among scientists for communicating their work to the public than there had been a generation ago. “The first few individuals who brought to public attention the plight of the oceans were considered publicity hounds by their peers."

"Scientists must realize there is nothing more captivating than their own story," Alda urged. "It is a passion that makes them pursue that they are pursuing; if they can relate that, the public can share their emotion."

Winnowing Alda from the press of scientists who for the most part seemed pleased with both his participation and message, Alda emphasized his stance. “My warning is that science is so important to our lives, we cannot leave how to communicate it to chance. Science is done

systematically, over time; scientists can systematically become better communicators over time. Communication is not something extra you add on to science; it is of the essence of science. How can you have science if you can't communicate what you discover?

“There are always going to be some people who can communicate better naturally, but the idea is to bring everyone up a notch," the affable Alda added. "Scientists must realize there is nothing more captivating than their own story. It is a passion that makes them pursue that they are pursuing; if they can relate that, the public can share their emotion."

As for the long accepted divide between science and art, Alda remarked, “I bet there are more scientists who can quote Shakespeare than there are Shakespeare scholars who understand the Theory of Relativity."

Panelist David Conover, musing in a chair with his back to the entrance of Berkner Hall, surmised, “It's the young people who are not yet fully formed as scientists who have a higher interest in the skills of communicating. Scientists who have doing things their way for a long time—it's hard to break that pattern."

Albeit so, it was also Conover who remarked, "Scientists, by the nature of what they do, are learning throughout their lifetimes," suggesting a probability of change.