

Recalibrating the Science-Media Conversation

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Whether it's at the annual AAAS conference or a small scientific symposium, there's a long tradition of including a (sometimes token) panel discussion or presentation about science and the media. For many attendees, this is a good time to get a coffee and check e-mails.

This reach for the caffeine isn't because attendees aren't interested in the topic, but often because they've heard it all before. The mantra goes: Scientists' are poor communicators; journalists' sensationalize and get facts wrong. The solutions: We need to train scientists to better communicate, and increase journalists' science literacy.

There's validity to these points. The problem is they're the surface of an understanding that might move the science-media conversation into new and more engaging territory.

The science-media conversation is stuck. To get it moving again requires shifting from a mechanistic discussion to one grounded in cross-cultural analysis and understanding.

At the recent ISSP *Science and Society 2013: Emerging Agendas for Citizens and the Sciences* symposium broadcaster and *Science and the Media* panelist Jay Ingram emphasized that while traditional media training is important (ex. how answer interview questions...) it's not enough. More importantly, it's not the core of the issue.

He noted that the challenge in public science communication isn't about conveying more scientific facts or increasing science literacy. The challenge lies in addressing cultural and psychological differences among those who have a science message and the diverse audiences that message is reaching.

In many ways this is heresy to scientists who are more comfortable hammering away at facts, for example the tons of carbon dioxide in your carbon footprint.

However, facts aren't the panacea. In many cases the challenge is to integrate existing knowledge into cross-cultural communication models, the kind often used by community activists in achieving community change.

This cross-cultural perspective isn't new when it comes to discussions of the relationship between science and larger society. C.P. Snow's famous 1959 crie de coeur *The Two Cultures*, outlined what Snow saw as a deep and dangerous divide between the cultures of science and the liberal arts, the latter including the vast majority of journalists.

It's time that we started science and media discussions from this broader cultural perspective, with the procedural how-to elements grounded in it.

Such a change in point of departure will transform the science-media conversation in two initial ways.

Facilitators often use the analogy of the iceberg to describe the challenges of cross-cultural communication. Only a small portion of an iceberg is visible above the waterline. In science communication it's the facts that are visible above the cognitive waterline. The vast bulk of what's actually being communicated lies invisible below the factual surface. Down there are the beliefs, histories, ideologies, personal and community relationships--all the things that actually make or break cross-cultural communication.

It's the ninety percent of culture under the surface that we need to focus on and explore in future science-media discussions.

Second, the science-media relationship and discussion isn't a singular monolith. For example, the big issues of science-media-society contention in Canada and the United States are evolution and climate change. Most areas of scientific research aren't problematic. These two are for social and cultural reasons--one challenges a deeply embedded sociocultural narrative (the Bible), the other goes to the heart of our carbon-intensive way of life.

In my own work, I'm exploring how story can act as a cross-cultural bridge. Our brains are wired for both science and story and I believe that engaging our narrative neurons in science communication is a way to traverse cultural divides. In writing and performing kids' science-based theatre and in writing adult non-fiction books and plays, I'm leveraging narrative techniques to make science facts both engaging and culturally meaningful.

Grounding science-media discussions in a cross-cultural context will, if nothing else, engage a much wider group of thinkers, from psychologists to cross-cultural trainers anthropologists and playwrights. In a practical way, I think it will also create more savvy, patient practitioners.

At the ISSP symposium, I sat beside grizzled veteran science journalist (and ISSP Fellow) Peter Calamai. When I bemoaned the discussion-on-replay nature of the science-media debate, he scoffed and quoted the final lines of *The Great Gatsby* "So we beat on, boats against the current, borne back ceaselessly into the past."

Yes, the complex relationship between science and the media isn't something that will ever be "solved". If nothing else though, we could surprise the folks checking their e-mail by adding some new and fresh cultural elements into the science-media discussion.

Ingram noted the work of Yale University's culturalcognition.net
See several lectures I gave in 2008 at the Kavli Institute for Theoretical Physics exploring the science-media cultural divide <http://online.kitp.ucsb.edu/online/resident/>