Explaining Enrichment Engagingly

As a fellow advocate for enrichment I know well the powerful advantages it offers both animal care and animal research. And so I feel the same frustration you do when I encounter those who dismiss enrichment as a trivial or non-productive endeavor.

However, as a long-time research communicator, I've developed strategies that you can use to overcome such resistance. Here are some of the most useful precepts I've followed, based on my experience, and drawn from my book Explaining Research.

Acknowledge, don't argue. It's tempting and natural to become adversarial when you encounter, say, an old-line vet who's dead set against enrichment, claiming that it interferes with cost-effective animal care. A better strategy is to take time to acknowledge those beliefs, even reciting their own arguments that favor their position. Then you've set the stage for a more benign "transformative explanation," as one of my communicator colleagues terms it.

For example, you'd say something like, "Yes, I can understand how enrichment has been seen as adding to the budget and requiring more time for technicians. That's an issue we've addressed, too." But then you can proceed to say "Those are certainly valid concerns. But what we've seen is that labs that launch the programs have seen advantages in that the enriched animals end up having fewer pathologies, which can lower veterinary costs."

Frame the issues. A related technique is to "frame" the discussion with people who oppose enrichment in a way that resonates with their values. For example, rather than framing an enrichment discussion as "improving animal welfare," you would emphasize "achieving an optimal research environment to promote the best research."

This frame might include raising the question: "Is an animal a valid scientific model if it exists in a stressful, unnatural environment?" Another question might be "Given the fact it's not possible to anticipate as-yet-unknown future experiments with an animal model, isn't it wisest to maintain them in an optimal behavioral environment?" After all, such factors as stress and unnatural environments are proven to have developmental, physiological and behavioral impacts. Future experimental protocols may *depend* on observing normal nest-building, exploration, foraging and other behaviors.

Accentuate the positives. When faced with a negative charge, your first inclination is to deny it. But the best strategy is not to deny, but to *confirm a competing positive idea*. A denial only works in the short term, and people still remember the negative. The best example of this strategy comes, oddly enough, from the Obama presidential campaign. He was falsely accused of being a Muslim, but social scientists aiding his campaign advised him not to deny it, but rather affirm by statement and deed that he is a Christian. For example, he would end his speeches with "God bless America," and his campaign made sure there was coverage of his church attendance. It worked, and the accusation faded from the public discussion.

In the case of enrichment, a negative charge might be "You just want to throw some toys in the cage." Rather than deny that, you might positively discuss the multiple components of enrichment, including providing bedding, social interaction, and food variety that an animal care professional would likely agree are valid additions to an environment.

Cite authority. Those who minimize the significance of enrichment can hardly take issue with its endorsement in the latest edition of the *Institute for Laboratory Animal Research Guide*. The *Guide* cites studies in mice that indicate "housing conditions can be enriched without compromising the precision or reproducibility of experimental results," and states that "it has been shown that conditions resulting in higher-stress reactivity increase variation in experimental data. Because adequate environmental

enrichment may reduce anxiety and stress reactivity…it may also contribute to higher test sensitivity and reduced animal use."

Besides these general communication strategies, there are also specific techniques that help you persuasively tell the story of enrichment's value:

Show quality visuals. Simply using text, charts, diagrams and drawings to depict doesn't engage the brain's powerful visual processing machinery. Always try to accompany any article or talk with quality photos and video of enrichment in action. If possible, hire a professional photographer or videographer to make the visuals most compelling and attractive. Even stock photos help. When you're talking about enrichment for a particular species, show images or video of that species, even if they don't portray the animals you're talking about.

Tell stories. When you write or talk about enrichment, don't just communicate in the abstract. Tell anecdotes about labs that launched enrichment programs and that achieved successes. And make those stories vividly descriptive, concrete, and personal. Neurological studies have shown that such stories engage audiences on more than an intellectual level. MRI scans of people reading stories have found that the stories activate brain regions associated with the story's content. For example, reading about action switches on the motor cortex; reading about an aroma switches on the olfactory cortex. These studies revealed that your audience is "building" a minds-eye model of your story in their brains. You're engaging their imagination.

In the end, your strategy with all these techniques is to emphatically convey the message that enrichment is an accepted, integral component of quality lab animal care. And any facility that has not implemented enrichment is neglecting its responsibility to foster the best possible science.

References:

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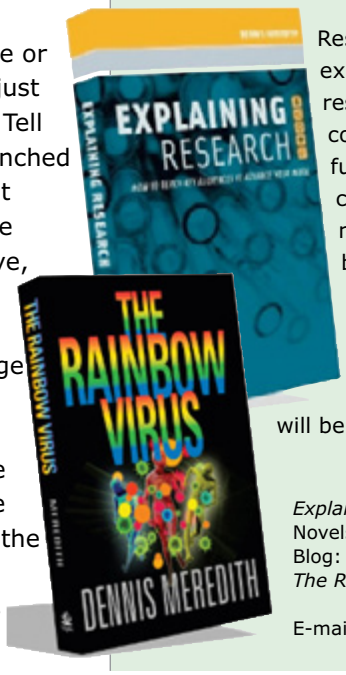

Dennis Meredith's career as a science communicator has included service at some of the country's leading research universities, including MIT, Caltech, Cornell, Duke and the University of Wisconsin. He has worked with science journalists at all the nation's major newspapers, magazines, and radio and TV networks, written well over a thousand news releases and magazine articles, was a creator and developer of ***EurekAlert!***, working with AAAS to establish an international research news service, which now links more than 4,500 journalists to news from 800 subscribing research institutions, and is the author of: *Explaining Research—How to Reach Key Audiences to Advance Your Work*

Research success depends not only on conducting incisive experiments and publishing in top journals but on explaining a researcher's work clearly and engagingly to important audiences: colleagues, potential collaborators in other disciplines, officers in funding agencies and foundations, donors, institutional leaders, corporate partners, students, legislators, family and friends, journalists, and the public. *Explaining Research*, published by Oxford University Press, is a comprehensive guidebook describing tools and techniques for scientists, researchers and engineers to reach all these audiences effectively.

His next book, *The Rainbow Virus*, a science fiction adventure, will be published in January.

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