

Let's Get Real: (Re)making Scientists Into People

Conjure up your mental image of a scientist. If you are anything like most members of the public, you envision a tall, white male wearing long gloves and a starched white coat. But what if I told you that you are not imagining a real person at all, that you are looking at the embodied equivalent of a statistic? This is a Scientist, and he is far removed from you. His words are easy to stereotype or disregard, and when he speaks, you may not listen. His image is not real.

As humans, we care about what is real to us. To our detriment, we as biomedical researchers have let the media turn us into caricatures, cartoon figures in lab coats and goggles wagging our fingers at the public. I believe that to truly become relevant—to transfuse the discoveries we make at work into the flow of daily global dialogue, to help our neighbors choose to watch and know and care—we first have to be real. A timeless children's book, *The Velveteen Rabbit*, provides an insightful explanation of this process. Margery Williams Bianco's wise old horse explains that becoming real "doesn't happen all at once... You become. It takes a long time. That's why it doesn't happen often to people who break easily, or have sharp edges, or who have to be carefully kept." Right now, we as scientists have sharp edges. The complexity of our language scares people away, because they know our unfamiliar words must be carefully kept. We break easily, because when people do not understand us, it is easy to discard our lofty theories for ideas that make more sense. Rather than couch ourselves in pointed prose, retreating behind journal paywalls to speak amongst ourselves, we need to help our non-scientist friends see a more accurate picture of biomedical research. In order to care about the things we do, they must understand who we are.

The most heartening thing to take from this realization is the fact that this directive—to become more real—is not hard to follow. As scientists, we are already happily, beautifully real. In my lab alone, we are Serbian fathers, Turkish surgeons, Austrian neuroscientists, Indian-American microscope builders, Taiwanese recycling aficionados, and hipster West Coast audiologists. We are cupcake bakers, Bachelor watchers, opera lovers, and world travelers. We differ by as much as thirty years in age, but call each other over between experiments to laugh at slapstick YouTube videos. We pop every single one of the bubbles in the bubble wrap that comes in our packages.

We cut open cooling packs to squish the goo inside. Full boxes of pipette tips sometimes fall from top shelves onto our heads. We are interesting, we are relatable, and we are real.

So, in our interactions with the public, how can we better allow them to experience and value this reality? In an age defined by nearly constant engagement with social media—the members of Generation X spend seven hours a week on social platforms, topping millennials—embracing and participating in trending Twitter and Instagram topics can be an empowering way to bring the public into labs. This year, the hashtag #RealLivingScientist drew hundreds of thousands of tweets carrying pictures and descriptions of scientists, describing the ups and downs of lab work. Similarly, the #ILookLikeAnEngineer initiative allowed all kinds of engineers to pair real, eager faces with the projects they were working on. Websites like “Lol My Thesis” allow graduate students to sum up their projects in just five words, often accompanied by links to primary sources. Initiatives like “Dance Your PhD,” sponsored by the serious academic journal *Science*, allow researchers to express their research through dance, drawing thousands of views on YouTube. Such opportunities also afford the public unprecedented ways to participate. Many prominent scientists maintain personal Twitter accounts, through which anybody can tweet at them with questions or concerns and receive a direct, personal response. On a larger scale, every person on the Internet remembers the ALS Ice Bucket Challenge, for which millions of non-scientists doused each other with ice water to raise over \$115,000,000 for amyotrophic lateral sclerosis research. Such methods of outreach and engagement may not be traditional, but in a world where nearly every person in every demographic is glued to the Internet, I believe it can be effective.

Will a click on the Ig Nobel Awards make the average person laugh? Absolutely. And I believe that if they laugh and see us laugh, if we are able to connect with them not as scientists and laypeople but as fellow curious, excited humans—real people who are trying to make a real difference—they will begin to care. After all, as Bianco’s horse concludes, “Once you are Real you can’t be ugly, except to people who don’t understand.”

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