

MARCO IACOBONI

Neuroscientist, UCLA Brain Mapping Center; author of *Mirroring People: The New Science of How We Connect with Others*

The Marginal Role of Science

Some time ago, I thought rational, enlightened thinking would eventually eradicate irrational thinking and supernatural beliefs. How could it be otherwise? Scientists and enlightened people have facts and logical arguments on their side, whereas people “on the other side” have only unprovable beliefs and bad reasoning. I was wrong, way wrong. Thirty years later, irrational thinking and supernatural beliefs are much stronger than they used to be, permeate ours and other societies, and do not seem to be going away anytime soon. How is it possible? Shouldn't history always move forward? What went wrong? What can we do to fix this backward movement toward the irrational?

The problem is that science still plays a marginal role in our public discourse. Indeed, there are no science books on the *New York Times* 100 Notable Books of the Year list, no science category in *The Economist's* Books of the Year 2007 and only Oliver Sacks in *The New Yorker's* list of Books From Our Pages.

Why does science play this marginal role? I think there's more than one reason. First, scientists tend to confine themselves in well-defined, narrow boundaries. They tend not to claim any wisdom outside the confines of their specialties. By doing so, they marginalize themselves and make it difficult for science to have an effect on society. It is high time for scientists to step up and claim wisdom outside their specialty.

There are other ways, however, to have an effect on society—for instance, by making changes in scientific practice. These days, scientific practice is dominated by the hypothesis-testing paradigm. While there is nothing wrong with hypothesis testing, it is definitely wrong to confine all science to it. This approach precludes the study of complex real-world phenomena, the phenomena important to people outside academia. It is time to perform more broad-based descriptive studies on issues relevant to our society. Another dominant practice in science (definitely in neuroscience, my field) is to study phenomena from an atemporal perspective. Only the timeless seems to matter to most neuroscientists. Even time itself tends to be studied from this “platonic-ideal” perspective. I guess this approach stems from the general tendency of science to adopt the detached “view from nowhere,” as the philosopher Thomas Nagel puts it. If we have learned anything from modern science, however, it is that there is no such thing, no view from nowhere. It is time for scientists, especially neuroscientists, to commit to the study of the finite and temporal. The issues that matter here and now are the issues that people relate to.

How should we do this? One way of disseminating the scientific method in our public discourse is to use the tools and approaches of science to investigate issues salient to the general public. In neuroscience, we now have powerful tools that let us do this. We can study how people make decisions and form affiliations—not from a timeless perspective but from the perspective of “here and now.” These are the kinds of studies that naturally engage people. Reading about such studies, people are more likely to learn scientific facts (even the atemporal ones) and absorb the scientific method and reasoning. My hope is that by being exposed to and engaged by scientific facts, methods, and reasoning, people will eventually find it difficult to believe unprovable things.