Science on Social Media

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I'm often intrigued and frustrated, in equal measure, by the way people react to scientific research findings in my social networks. While it is not surprising, it is especially remarkable to observe how often people choose to share stories in which findings are reported that seem to confirm their prejudices.

One example that comes to mind concerns an article published in The Guardian in August last year. The research suggested the possibility that epigenetic mechanisms may be involved in the transmission of past traumas from parent to child, such that the painful experiences of ancestors may be expressed in the genes of later generations. I've noticed people responding warmly to this notion, as though it explained something in their lives, and confirmed some existing if vague intuition.

I've also noticed with interest that people have tended not to share the article published alongside side it which suggests that this research may be at best dubious, and at worst should never have been accepted for publication.* I also strongly suspect that these same people would be unlikely to share reportage of scientific research purporting to show that certain other social traits, whether of an epigenetic or more conventionally genetic kind, may have biological origins (or, if they do share, it would be to condemn such simplistic biologisation**).

What we have here, of course, is an all too familiar example of cognitive bias. This is a frailty we are all subject too. But it is also a weakness mercilessly promoted by our addiction to social media and the challenge to our critical senses it too often encourages. In my experience, stories about science undergo this fate with depressing regularity.

One does not need to be a scientist or have any special technical knowledge to ask oneself, before sharing or commenting on a scientific story: "why might I be inclined to agree or disagree with what is reported?" This can be a sensible check on both enthusiasm and outrage. Thus I have often asked my friends to try and clarify, even if only to themselves, why it is that they are prepared to accept the scientific consensus on certain issues, such as climate change, and not on others, such as the health consequences of GM foods or vaccination initiatives.

Please people, this is really not as hard as it sounds.***

- * It is of casual interest to observe that, when I initially wrote a version of this gripe as a Facebook status update, a friend of mine chose to share the original article I posted with it, not the rejoinder, nor indeed my remarks. I never enquired why, though perhaps I should have.
- **For sociologists interested in changing views of biology, its increasingly "social" character, and what this may mean for social theory, I can suggest this article by Maurizio Meloni in The Sociological Review
- *** You might be inclined to agree with me, but still ask why sociologists in general should care? After all, cognitive bias is a theory from psychology, is dealt with ably by our colleagues in social psychology, and the issues touched on here are well known to our friends specialising in the public understanding or communication of science. I can hardly explain all the reasons here, but might just mention two. One is that on social media, cognitive bias conspires with our basic propensity to trust one another, especially our friends. When a friend shares a story we are greatly inclined to accept it at face value, our friends association with it functioning as a little stamp of credibility. How often have you seen a friend share a story of the most dubious lineage, coming perhaps from a blog you are pretty sure your ordinarily sensible friend would have been guite unlikely too have discovered independently of that story being shared by a friend of theirs? I know this happens to me all the time with stories related to science (see also *). If trust is a basic component holding social order together, as sociology has often taught, one might want to explore how the social functionality of this institution is being pressured and transformed in these and similar instances. Another question we could consider is, beyond people's tendency to be sympathetic to scientific findings whose apparent implications they already agree with, how might the sharing of scientific stories be affected by perceptions of what we think our friends will think of us when we share them? What, for instance, are the rewards for sharing in our online communities, and might these help us establish and negotiate our identities and status positions within these communities? There is much to do, and no doubt much to read.

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