## Entrenched biases and structural incentives limit the influence of interdisciplinary research.

blogs.lse.ac.uk/impactofsocialsciences/2014/02/18/interdisciplinary-research-bias-incentives/

2/18/2014

Due to unequal funding streams and leadership structures, dominant frameworks emerge within interdisciplinary departments. Elizabeth Dzeng shares her experience in the field of medical social science where the drive to publish in high impact journals pushes researchers to conform to predominantly objectivist definitions of quality, rather than more interpretive frameworks. Crossfertilization of ideas will remain limited unless we redefine quality to include all relevant modes of inquiry.



I was recently corresponding with a professor discussing one of the "Big Five" medical journals. My research is primarily qualitative and he remarked that the particular editor he was talking to, "doesn't believe that qualitative research is research." It is unfortunate that this perception exists in academic medicine and in particular with journal editors, the gatekeepers of scientific knowledge. I'd like to address the arguably widespread perception in academia that interdisciplinary research is generally of poor quality. In order to respond to this view, it is first necessary to address a more fundamental question: What is the definition of quality and who defines it?

Any scientific exploration must include an understanding of the research's epistemological framework. Those with a realist ontology seek an objective truth that exists independently of an individual's understanding of the world, whereas qualitative researchers tend towards a more interpretive lens. The challenge with interdisciplinary research is that it operates at the intersection of these different theoretical frameworks. Researchers are thus confronted by the debates between these diverse worldviews in ways that disciplinarily focused researchers are not. Due to unequal funding streams and leadership structures, dominant frameworks emerge within interdisciplinary departments, which dictate definitions of quality.



Because publication counts factor so highly in evaluation metrics such as the REF, the academic publishing industry has a tremendous influence on this interdisciplinary research agenda. A drive to publish in high impact journals incentivises researchers to conform to these journal's definitions of quality, even if their definition reflects a framework that is different from their researcher's mode of inquiry.

Traditional quantitative medical sciences for example, judge research quality by its generalizability and validity. Because of this, they are less accepting of approaches such as phenomenology, which focus instead on understanding the subjective experiences of individuals in a specific setting. Checklists have emerged to conform qualitative research to positivist understandings of validity and generalizability. Standards such as double coding to ensure objectivity and consistency, are required for publication in reputable medical journals. One checklist even recommends that "interpretation must be grounded in 'accounts' and semi-quantified if possible or appropriate."

I have spoken to social scientists working in medical based departments, who felt that the need to adapt to the principal discipline posed challenges to their intellectual self-identity. They expressed angst over their inability to produce research true to their home discipline's definition of quality. This might affect their own employment prospects if they decide to move back into their native discipline. In my own research, I have realised that manuscripts I will submit to medical journals will need to be written through a more objectivist mindset, rather than through an interpretive framework that seems more appropriate for my project.

This perception of poor quality reflects not only intrinsic prejudices against interdisciplinary research, but also highlights the systematically ingrained biases in the publication process. A recent study elucidated factors that contribute to this perception by showing that journal rankings inherently disadvantaged this type of research. They found that top journals "span a less diverse set of disciplines than lower ranked journals," resulting in systematic bias against interdisciplinary research. Because publications in high impact journals are seen as a proxy for quality and determine REF evaluation and financing, this becomes a disincentive against engaging in interdisciplinary research.

Many have warned me that it is difficult to publish qualitative research in the best medical journals. Particularly discouraging is a study which showed that over a span of ten years, only 0-0.6% of articles in the top ten medical journals were qualitative. As an early career researcher, this means that I will have a more difficult time distinguishing myself amongst my quantitative colleagues, since evaluation for jobs, promotions, and funding, are primarily based upon where we have published.

This is also disheartening if one thinks about the real world impact of requiring interdisciplinary research to conform to sweeping definitions of quality (impact is after all a REF priority!). These overwhelming structural incentives promote further siloing into individual disciplinary camps. As a medic transitioning into the social sciences, I have been thoroughly impressed by the ability of social scientists to provide a deeper understanding into key problems in health care. Social scientific inquiry in medicine has the potential to apply alternative insights towards positively informing health care practice. Cross-fertilization of ideas will remain limited unless we redefine quality to include all relevant modes of inquiry, and lower the barriers to publishing interdisciplinary research.

Note: This article gives the views of the author, and not the position of the Impact of Social Science blog, nor of the London School of Economics. Please review our Comments Policy if you have any concerns on posting a comment below.

## **About the Author**

Elizabeth Dzeng is a General Internal Medicine Fellow at the Johns Hopkins School of Medicine in Baltimore, MD and a third year PhD student and Gates Cambridge Scholar at the University of Cambridge, King's College. She can be followed on twitter @LizDzeng.

• Copyright © The Author (or The Authors) - Unless otherwise stated, this work is licensed under a Creative Commons Attribution Unported 3.0 License.