

The authors reply

Os autores respondem

Response: a call for the study of multidisciplinary collaboration

Réplica: um convite para o estudo da colaboração multidisciplinar

We are grateful for the opportunity to engage in a constructive debate with our three distinguished colleagues on the subject of collaboration between epidemiology and anthropology. The reviews provided by Leal, Knauth and Hartz point to a number of interesting and important points which we can only begin to do justice to in this brief response. Sacrificing breadth for depth, we have chosen to focus our reply on a single unifying theme highlighted by all three authors. This relates specifically to the question of how to move beyond a technical form of a collaboration based simply on the mixing of “qualitative” and “quantitative” methods, to a form of collaboration that promotes theoretical exchange and fruitful *epistemological* confrontation.

As we emphasized in our article, and as all three reviewers’ also highlight, to move into more productive cross-disciplinary exchange, we must distinguish between data collection techniques and epistemologically-implicated methodological traditions. To discuss disciplines only in relation to the methods they use provides a limited understanding of how they can contribute to a richer understanding of the world. As we argued in our article, and as Leal further accentuated, an ethnographic approach can incorporate quantitative surveys, as can epidemiological studies include qualitative components, without in either case substantially altering epistemological assumptions. Leal rightly states that while greater dialogue has developed between anthropology and epidemiology with regards to the exchange of methods, the theoretical paradigms orienting each discipline are so distinct that researchers in these fields often experience great difficulty in jointly constructing *theoretically*-relevant objects of analysis. At stake here, as Knauth states, is the development of a more fundamental form of collaboration, one directed at theoretical exchange, and thus, at the ways in which research questions are identified and empirical data interpreted. Yet, as we would all no doubt agree, such forms of collaboration rarely occur in practice. As Hartz reminds us, this is in part because the

very notion of cross-disciplinary collaboration is predicated on the implicit acceptance of the view that disciplines *should* ardently “defend” their identities and make claims to a specific epistemological tradition as their own.

Clearly, such defensive postures perpetuate an alienated and stymied relationship between the disciplines. There is no doubt that debates on the merits and drawbacks of “qualitative” and “quantitative” methods have led to circular arguments and dead-ends^{1,2}. Rather than engage in multidisciplinary research by simply exchanging specific methods (e.g. questionnaire-based interviews, unstructured conversation, random and purposive sampling), we would do well to delve deeper into the theoretical underpinnings of the knowledge-generating traditions within which our disciplines have developed historically. To do so would catapult us more directly into debates on differences in styles of reasoning (e.g. deductive hypothesis-testing, inductive evidence-gathering) both between and within disciplines.

However, as we know from several decades of research in the sociology and anthropology of science, to separate the technologies that scientists use from the epistemological assumptions upon which these technologies are based artificially disaggregates intricately intertwined phenomenon^{3,4}. How we interpret our empirical observations is fundamentally shaped by the way we access and document these observations. Moreover, within specific historical and social contexts, data-collection techniques come to be associated with specific epistemological traditions and assumptions⁵. While it would be inaccurate to state that method *determines* theories of knowledge, it is the case that methodological techniques are one amongst several central factors affecting the ways scientists produce knowledge and shape their world-view. As Latour has argued, in-depth understandings of how knowledge is produced cannot be gained if we “black-box” the technical aspects of science and scrutinize only the products of scientific practices (e.g. research conclusions, textbook descriptions of method). Rather, we must observe and follow scientists as they go about doing their work, developing new methods and theories, seeking “to close one black box and to open another.”⁶

By focusing on scientific *practices* rather than only ideologies, we are also forcing ourselves to recognize the immense diversity that exists within disciplines, particularly with regards to the degree to which scientists themselves link method to epistemological identity. In its most extreme form, the link between data-collection technique and

epistemology is often ascribed to dogmatically, and could even be described as stereotypical. A sizable group of hard-core quantitative epidemiologists, for example, claim that the only acceptable way of establishing the causal link between two variables is through randomised intervention trials – so much so that it is not so infrequent to hear some epidemiologists calling for the end of observational epidemiology altogether. Similarly, purist anthropologists who wish to reject all forms of “positivist” science (irrespective of how this is actually defined) appear to also reject any discussion of the pros and cons of diverse data-collection techniques, claiming that to do so “reduces” critical debate to a question of “technical” detail, depoliticizing and diverting attention from important theoretical questions.

However, many epidemiologists and anthropologists do not adopt such uncompromising positions, and thus, are more open to engaging with methodological innovations that challenge the core of their disciplines’ epistemological assumptions. We would argue that these more moderate researchers also tend to explicitly recognise that factors contributing to health processes require a more sophisticated understanding of the relationship between biological and social phenomenon. Indeed, while calling for a form of collaboration that moves beyond the simple exchange of methods, our article nevertheless shows that debates over methodological technologies are a useful starting point for scrutinizing assumptions regarding the production of true or believable knowledge.

For these reasons, we reject the notion that to engage with debates about data-collection techniques is reductionistic. On the contrary, in-depth forms of technical collaboration and robust debate harness the potential to lead to productive epistemological changes and to the implications, for example, by showing that many health problems are influenced by determinants that are imbedded in a local social fabric that must be addressed.

We would like to end our response by recommending that more attention be given to the study of multidisciplinary collaboration itself. To date, anthropologists and sociologists of science have tended to focus on the study of epistemological communities that are particularly “exotic,” such as those researching new genetic technologies. While such work has laid the theoretical foundation for understanding how knowledge is differ-

entially produced and shaped by scientific practices, we have yet to develop a full depth understanding of how multidisciplinary collaboration within public health research – which today includes both the population sciences (epidemiology, demography, economics) and the social sciences (sociology, history, anthropology) – is developing. In part, this may be due to the fact that the methods used by public health researchers appear highly “common-sensical” and now part of the everyday life of common citizens. Indeed, both the quantitative survey and open-ended interview are so routinely used by polling experts, the media, marketing, and in almost every facet of government, that there is nothing particularly novel or strange about them, no apparent need to scrutinize the assumptions imbedded in the way they shape our view of the world, and of scientific empiricism itself.

Yet the incipient literature base on public health research has identified a number of factors that shape the way multidisciplinary research is developing and that constrain the forms of robust methodological and epistemological we are making an argument for. Such factors include the division of labour between disciplines, the need for academic recognition, the establishment and maintenance of professional livelihoods, promotion requirements, publication pressures, teaching routines and traditions, the devaluing of ‘applied’ research, and the often disparate interests of donors and the research communities they fund⁷⁻¹⁴.

Finally, studying public health research means also studying not only epidemiologists and other population scientists at work, but anthropologists and sociologists as well. By being situated somewhere between the humanities and the social sciences, anthropologists have evaded a systematic investigation of how it, as a discipline, produces knowledge. Notwithstanding the impact and continued merits of the turn towards critical reflexivity instigated during the 1980s in anthropology¹⁵, it is time anthropologist – particularly those engaging in cross-disciplinary ventures – also submit themselves to outside investigation. Indeed, it is only by studying the multidisciplinary process itself that we can delineate, with a high degree of specificity, how multidisciplinary epistemologies can be used to generate a broad understanding of health processes and social change.

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