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Beyond method: constructing "anthropoepidemiological" methods

Para além do método, construindo modelos "antropoepidemiológicos"

Daniela Riva Knauth [1]

The article is contributing importantly to the discussion about qualitative and quantitative research methodologies applied to the field of health. The authors present a variety of possible combinations of these two methodologies, emphasize the gains in terms of comprehension of the different dimensions of the phenomena under study and point to some difficulties, many of which resulting from mutual prejudice among the researchers.

However, despite the advances that can be observed, it does not seem to me that the joint utilization of quantitative and qualitative research methods has made much progress with regard to the epistemological differences between the two methodologies or, better, between the two fields of scientific knowledge that build the fundament of these methodologies. In general we use to see both quantitative and qualitative methodologies as a set of techniques for data collection, the first applying questionnaires to great samples and the second, on the contrary, investigating small groups by means of semi-structured interviews or focal groups. With this I do not want to diminish the importance of an interdisciplinary use of these different data collection techniques. Doubtlessly such integration contributes to a deeper understanding of the phenomenon study, as clearly shown by the examples given in the article. In my understanding, this as a first moment of approximation, a first dialogue between two fields of knowledge that generally do not communicate, kept apart even by their academic structures fitting epidemiology into the faculties of medicine and anthropology into the faculties or departments of human sciences. In this context I would like to call attention to the fact that in Brazil, through the consolidation of the field we call "collective health", which is closely linked to the political movement that created the unified health system, these two disciplines are already in touch for some while now.

However, as shown in the article, different possibilities of combinations of qualitative and quantitative research techniques have been identified and successfully used in different studies, so that today the contribution of qualitative research to epidemiological studies can hardly be denied. Although some epidemiological areas are remaining firm against this approach, the so-called ***clinical epidemiology*** in opposition to ***social epidemiology*** for example **-** categorizations questionable as such. In other words, it seems to me that this first phase has already been overcome and that we now can proceed to reflections reaching beyond the use of different data collection techniques.

In my understanding, the greatest gain in the relation between epidemiology and anthropology lies in the discussion of theoretical models that guide the formulation of the question to be investigated and the analysis of data. Not in the sense of formulating the questions of a questionnaire (although, as pointed out in the article, there is a strong contribution in this sense as well), but as refers to the construction of the object itself, of the factors (variables) to be investigated, and to the formulation of statistical analysis models capable of addressing these questions. In this sense I believe that the way, in which anthropology looks to the social and its implications upon the individual and, more specifically upon the behaviors, and the tools available in this discipline, can make important contributions to epidemiology. In this sphere, in my understanding, we are still feeling our way in the dark.

Thus, what is special in anthropology is not only its research methodology - in general seen in a quite simplistic way for being ***qualitative*** – but the way it conceives the relations between the social and the individual, between nature and culture, universal and particular; it is its constant concern with sense and meaning, with the context and the situation in which behaviors take place, with the particularities of each culture or group and with the social determinants acting upon them.

This is perhaps a dialogue much more complex and difficult than that arising when combining qualitative and quantitative research methodologies since it requires a kind of ***fusion,*** or to use a term belonging to the field of medical anthropology itself, ***embodiment*** of quite distinct

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epistemologies. One could even say that it would imply in a new epistemology, an epistemology founded on the basis of these two fields of knowledge. Undoubtedly this is a quite daring proposal implying in a long process of negotiations, trials, mistakes and theoretical reflection and in a movement against the current demand for generation of data and analyses, leaving no time for theoretical reflection.

However, there are some movements beginning to consider the contribution of social sciences also in theoretical and conceptual terms. This can be observed in the increasing utilization of the concept gender in epidemiological analyses (not as a synonym for sex)[1] or in the attempts to incorporate the question color/race.

Finally, I would like to call attention to what I consider a promising example for my proposal for reformulation of theoretical models in epidemiology using a concept of the socio-anthropological sphere: the concept ***vulnerability.*** This concept, although not restricted to AIDS, achieved great importance in this field for representing a – political and scientific – alternative for understanding the exposure of certain social groups to the HIV/AIDS epidemic beyond the traditional concepts ***risk group*** or ***risk behavior.*** The concept vulnerability provides a different view upon what up to know was treated as ***risk*** by clearly giving priority to the social dimensions without disregarding the individual ones.

Thus, whereas the risk concept is intimately related to the individual (the calculation unit), the vulnerability concept is aimed at determinations that reach far beyond the individual. Besides, risk is a measure not allowing for much comprehension of the variabilities of the universe itself. The concept vulnerability as such presupposes diversity in the universe, resulting from the combination of different variables in the social, institutional (programmatic) and individual spheres, although on different levels[2]. In other words, the concept of vulnerability is a theoretical construct incorporating a socio-anthropological perspective that can be introduced to epidemiological studies using their own tools – such as multilevel models – that can be reviewed from this perspective. Anthropology can contribute greatly to this analysis of the different levels and of how they interfere with the behavior of groups and individuals[3].

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Is epidemiology beginning to dialogue with anthropology?

Está a epidemiologia construindo um diálogo com a antropologia?

Ondina Fachel Leal [2]

The merit of the analysis made by Behague, Gonçalves and Victora in "Anthropology and Epidemiology: Learning epistemological lessons through a collaborative venture" lies in demonstrating the increased demand of the health sciences, epidemiology in particular, for knowledge, methodological strategies and research techniques traditionally restricted to the domain of anthropology. The text highlights a series of examples of empirical investigations, in which this collaboration was possible or, more than that, necessary, and in which the results of the investigations were constructed on the basis of two different approaches, the so-called "quali-quanti" procedures.

The fields of knowledge and the formalization of academic areas are taking on new shape and certainly at this point, neither epidemiology nor anthropology remains the same. Perhaps there was a time when both fields, social sciences and health sciences, felt they were keeping possession of an object, be it the body, be it the pro-

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cess of getting ill, or the search for solutions and cure. If we ever had this illusion, it vanished with the complexity of the health questions we face today (such as the AIDS pandemic) and the urgent need to understand the social processes of an endemic and to design and promote culturally suitable health policies.

Behague et al. show clearly the difficulties of this dialogue and present even more clearly evidence-based solutions that were extremely enriching for both disciplinary traditions or even beyond them, and that represented significant improvements in terms of public health practices and, hopefully, policies.

Since its origin, since its very constitution as a science, anthropology – having as fathers and founders Durkheim and Mauss - saw the elementary manifestations of the ***body*** (or the bodies) – suffering and pleasure – beyond their biological dimensions, as historical and social products, events to which different individuals and/or social groups attribute different meanings. In the concept of anthropology, the body - adorned or ritualized, constructing itself socially as masculine or feminine, reproducing, conceiving, being born, ill or dying – is always full of social meanings. The investigative questions of anthropology focus on these meanings. This is in what the answers arising there are of interest for the biomedical field, for what we agreed to call ***medical anthropology.***

On one hand we have anthropology that focuses on analyzing the experience of suffering or disease in its semantizations and in the social context creating them; on the other hand we have epidemiology operating from a naturalized perspective of health and disease processes and seeking to generalize a phenomenon. It is precisely in the different emphases of the two schools' characteristics that hamper a more effective dialogue between them, where the possibility or even the **need** to mutually complete each other resides. Anthropology applied to health must learn the dimension (prevalence, incidence) of the problem from epidemiology. Epidemiology, on the other hand, needs to approach the social dimension of the disease to better understand its dynamics.

There can be no doubt, the incorporation of ethnographic studies – or at least of some techniques of this tradition – to epidemiologic investigations could favor a better understanding of the relation between health and social practices. The text of Behague et al. has the merit of thinking the possible contributions of medical anthropology from inside the domain of anthropology while being concerned with offering answers to research questions formulated by epidemiology. This conduct is certainly fundamental for constructing a dialogue. As very well pointed out in the text, from the epistemological viewpoint both fields have a great difficulty to advance, construct something new and to construct a common object.

The proper choice of the term "quali-quanty" sais it all. Epidemiology uses to see anthropology as a repertoire of methods, all of them very distant from statistical tradition. As a matter of fact, what happens in general is that we fail to distinguish between ***method*** and ***techniques.*** The ethnographic ***method*** is in fact a fundamental part of anthropology but this ethnographic method can make use of quantitative ***techniques*** such as statistical data and statistical analyses to the extent these can help composing a dense and interpretive narrative about the problem at hand. From the perspective of anthropology, in this moment quantitative techniques (questionnaires, random samples and surveys) can and should make part of the ethnographic text, but always subordinate, always mere part of an epistemological totality.

One more step forward in this dialogue between epidemiology and anthropology could be to agree that the terminology "quali-quanti" is not appropriate since "quali" is saying very little about the competence and the field of anthropology. In fact, it says much more about the positivist tradition of the discipline that coined this term.

'Undisciplinary' comments from evaluative research in health

Comentários "indisciplinares" da pesquisa avaliativa em saúde

Zulmira de Araújo Hartz [3]

First, I would like to acknowledge the authors and editors of the magazine for the invitation to par-

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ticipate in this reflection about our research practices, the colleagues and co-authors of another debate that took place 10 years ago at the Escola Nacional de Saúde Pública (ENSP/Fiocruz) – **The integration of epidemiology and anthropology**[1] – whom I have the chance to share my preliminary (un)experiences in this learning process in which we are still involved today. At that time, I intended to call my speech Epidemiology and Anthropology in the evaluation of services: an 'undiscipline issue'. However, I chose for focusing on the 'rapidity issue', its advantages and challenges, given the conceptual and operational concerns related to the multiple evaluation demands from internationally funded health programs, echoing in the emergency of methodological approaches such as Rapid Epidemiologic Assessment (REA), Rapid Assessment Procedure (RAP), Rapid Ethnographic Assessment (REA), or Rapid Evaluation Methods (REM).

By reading the present paper, with a sound theoretical and empirical foundation, it seems to me that, in the lessons learned from this successful 'collaborative venture', the important issues of internal and external validity, that worried us before, when questioning the flexibilization of some disciplinary postulations of 'rigidity' in the primacy of rapidity and traditional forms of 'multidisciplinarity', have been overcome. It is also clear in the text that the field of health evaluation has been undeniably progressing in terms of the quality and timeliness of answers given by the studies imbued with the necessary 'interdisciplinarity', but, as appropriately remind the authors, there is understanding about the epistemological limitations of both disciplines, an excessive focus on the exchange of methods, and unbalanced power with a relative subordinate position of anthropology.

To modify those and other existing problems, the authors are convinced that "many questions regarding cross-disciplinary fertilization still need answering" in this dual field, but I think that we need to surpass the limits of Epidemiology and Anthropology, recognizing, like Morin[2], that cross-disciplinary (transdisciplinarity) today means an "undisciplinary" approach. Without intending to explain all implications and requirements of Morin's work, trying to build a 'complex new science', the most important for me is to break the notion of cross-disciplinary always insisting in the identities defense, as if corresponding to heterogeneous materials, when, in fact, all of us must share the same traditions of empirical observations and interpretations of natural, human and social sciences in our investigations.

In the evaluative research of social policies and programs, public health included, I have already mentioned the necessity for us to accept this disciplinary plurality as a formation and practice shaft in all our investigations, giving up any methodological monism (or dualism) attempt[3]. Different methods (sociology, history, psychology, biology, linguistic, geography, nutrition, economics, etc.), as epidemiology and anthropology, are mobilized and mixed as hybrid tools (cross-sectional survey, case studies, discourse analysis, focus group discussions, participant observation, structured, semi-structured and unstructured interview, many of them including themselves quantitative and qualitative approach) to offer alternative ways of understanding how people and organizations make sense of social interventions in their contexts. The big challenge now, in my point of view, is try to answer the Green's question[4]: Is Mixed Methods Social Inquiry a Distinctive Methodology? In this sense, 'undisciplinarity' could be also being conceptualized as a distinct academic field across disciplines, and Green's work give us the first insights (or inspiration for a next debate?) about its four dimensions or domains: philosophical assumptions and stance; inquiry logics; guidelines for practice; and sociopolitical commitment.

Finally, I hope that these brief comments may be enlightening similar concerns of the authors when, in agreement with Van der Geest's position, they considered in their conclusions the disciplinary specialization at the core of inhibited cross-disciplinary research, appealing each one to realize "that disciplines are merely humanly-designed tools to study and interpret and explain reality".

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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 assumptions[5]. 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 with 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 "technological" 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 reason, 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 differentially 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 fund[7-14].

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 anthropology[15], 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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