REFLECTIONS ON SOCIAL RESEARCH METHODOLOGY

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Abstract: The article presents a few ideas related to the more recent or older methodological debates: is sociology a science?, is sociological research scientific?, does epistemology offer specific methodological rules?, what's the point of splitting the social research methodology into quantitative and qualitative? The article suggests some answers and an option for more methodological freedom and creativity; it is in favor of a unitary methodology freed from arbitrary rules and pre-established designs and mostly, it tries 'to take the Q out of research'.

Key words: science, scientific method, qualitative research, quantitative research.

1. Introduction

My 'relationship' to methodology began 20 years ago, in the 2nd year of college. I fell in love with it thanks to our professor of Sociological Research Methods and Techniques - Professor Gheorghe Onuţ - who gave us wonderful weekly homework and ingenious examination topics. It was a great challenge for me, and so I became the most passionate supporter of what Professor Onuţ calls the 'scientific method in sociology'.

After several years of 'scientific' methodological dilemmas, of questions without satisfactory answers about its procedures, I abandoned it almost completely, and I fell in love with what I found in the literature under the name of 'qualitative research.' For some more years I was even more passionate about it. That lasted until Professor Gheorghe Onuţ and Professor Traian Rotariu began, more aggressively or more delicately, to shake my beliefs. Broadly speaking, they argued that the use of the terms 'qualitative research' and 'quantitative research' is possible in a kitsch epistemology (Onuţ, 2009) or that the qualitative term has undergone an 'illegitimate expansion' in the phrase 'qualitative research' (Rotariu, 2009). In short, these professors have made me accept with arguments that the name 'qualitative research' (and implicitly what lies within it) is wrong.

That's how I came to ask myself all kinds of questions again and try to rediscover sociological research. I bring together in this article some of my current methodological reflections.

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2. Science and Scientific Method

There are methodologists who wonder if sociological research is scientific or not; after all, they wonder whether sociology is a science or not. No matter how weird it may be, these things are still under debate in some organisations. Such a place is the small faculty where I teach.

Starting from Professor Rotariu's ideas, I have formed the view that, since there are so many sciences and since they are so different from each other (see 'some types of Sciences' in Rotariu, 2016), it is unlikely that there is only one rigid 'method' to produce scientific knowledge. What we call the 'scientific method' is suitable for the experimental sciences. If the observational sciences do not use it, it does not mean they do not produce scientific knowledge. Or 'the scientific activity cannot be reduced to the simple model of mechanics or of some other branches of physics, as it is a very diverse one, organized in accordance with the specificity of the reality under study and of the direction of approach' (Rotariu, 2016, p. 14). Thus, even if it is very difficult, I distance myself from Professor Onuţ's approach that tried in his books (2014a, 2014b, 2017) to match the 'scientific method' to sociology.

Chalmers (1999) also shows that there is no 'scientific method', but there are more, as it is evident from the subtitle of the second edition of his book on 'science and its methods': 'an assessment of the nature and status of science and its methods'. Neither does this author support, as I have realized, that there is a 'law' which could show that a science is science only if it applies the 'scientific method' proven to be successful in physics. A confirmation of this idea would be that anywhere in the text the author does not even suggest that social sciences (and, implicitly, sociology) would not be sciences.

There are all sorts of opinions (detailed in the aforementioned book), still under discussion, about the scientific method; from – it does not exist and scientific knowledge is not superior to other forms of knowledge (see Feyerabend's conception) to - all knowledge should be as the one in physics for the last 300 years (see Lakatos' conception). So, in my opinion, the solution of applying the 'scientific method from physics' in sociology is just a possibility, to be more precise, an extreme possibility.

Among other things, Chalmers (1999) also points out that 'there is no general account of science and scientific method to be had that applies to all sciences at all historical stages in their development' (p. 247), that "there is no universal, ahistorical method of science that contains standards that all sciences should live up to if they are to be worthy of the title 'science' (p. 161) that 'the idea of a universal and a-historic method is highly implausible and even absurd', that 'the idea that science can, and should be run according to fixed and universal rules is both unrealistic and pernicious', that it is 'detrimental to science', that it makes science 'less adaptable and more dogmatic' (p. 162).

The author also shows why it is not right to apply the scientific standards in physics: 'a methodology and set of standards for judging physics may not be appropriate in other areas. Physics can, and often does, proceed by isolating individual mechanisms [...] in the artificial circumstances of a controlled experiment. People and societies cannot in general be treated in this way without destroying what it is that is being investigated. A great deal of complexity is necessary for living systems to function as such, so even

biology can be expected to exhibit some important differences from physics. In social sciences, the knowledge that is produced itself forms an important component of the systems being studied. [...] This is a complication that does not apply in the physical sciences' (p. 147).

Thus, the argument that what is successful knowledge of simple phenomena should be successful knowledge for the complex ones is not at all valid. It is rather a counterargument: what is successful knowledge with simple phenomena has all the chances of not being successful with the complex ones. With all due respect for epistemology and for epistemologists, their examples taken almost entirely from physics, astronomy, etc. make epistemology the theory of scientific knowledge in 'simple' sciences (and even here things are still under debate). It seems that epistemology and epistemologies haven't started yet dealing with scientific knowledge in the sciences in charge of complex phenomena.

Chalmers (1999) seems to have suggested a solution: there are methods and standards in science, but they can vary from science to science and they can, within a science, be changed for the better. I understand that epistemologists ask the question better in relation to what standards? and that their answer is either the universal method or the relativism. Because philosophies would continue in the same manner indefinitely, I think that the answer should be rather methodological.

3. Does Epistemology Offer Specific Methodological Rules?

Epistemology is philosophy, epistemologists cannot say yet, nor will they ever say what science is, what is scientific, what scientific method is, etc. Their job is to philosophize, and when they have done away with debating, they will no longer be philosophers. It is thus sure that we will not find in epistemology anything more than just opposing, contradictory, equally valid and equally criticizing ideas that ceaselessly appear today and tomorrow. So, if we wait for epistemologists to give us a solution that everyone agrees with, we wait in vain. And the reality is that while epistemologists still discuss and fail to agree on how knowledge is produced, it happens anyway in every field unimpededly.

In Romania, the subject epistemology is not studied at any university specialization (apart from Philosophy). Thus, the engineers, doctors, etc. produce new knowledge without being aware of the theories of knowledge. The sociologists from all over the world seem to pay it the interest it deserves, but they invent punctual methodological contributions, particular technical interventions as belonging to epistemology.

Although there is no consensus among epistemologists, even in terms of the scientific method, they have been charged with the development of specific methodological rules. In my opinion this is one of the mistakes with the most important methodological consequences. Thus, a number of unjustified methodological rules have been imposed starting from philosophical approaches (more precisely epistemological and ontological) - such as: you cannot count in that approach, you are not allowed to use the questionnaire in this approach, etc. I consider that these rules are perfectly arbitrary, emanating from the misunderstanding of philosophies, from the too rich imagination of

some methodologists. I am convinced that there is no specific methodological rule in any epistemological writing, and that the scholars who justify their little methodological choices with epistemologists are just fanfarons. See, for example, social scientists that wonder, debate and decide on whether or not to use triangulation in an 'interpretivist paradigm' (I laugh at the thought that navigators or geometricians might have the same ontological dilemmas before applying triangulation).

Obviously, most methodologists are not epistemologists, just as most philosophers are not researchers. And, of course, they don't even have to be! Nevertheless, it seems to have become a rule that in any project, however small, any social scientist, even in his first attempt, to show off his/her doubtful epistemological knowledge, to ostentatiously exhibit currents, approaches, paradigms, etc. Let us be serious, can't we even take an interview without declaring ourselves idealists, can't we combine two methods without identifying us as pragmatists, can't we make a poll without being labelled as positivists? I wonder how many of the social scientists have ever opened a book of epistemology, how many of those who declare their 'phenomenological approach' have read a phenomenologist and I can continue with realism or criticism, with constructivists or functionalists, etc.

4. Is Sociological Research Scientific?

Looking for a more pragmatic answer to the question of what the scientific method is, I came across Hugh Gauch's book: 'Scientific method in practice' (2003). From it, I found out that the American Association for the Advancement of Science, the largest scientific society in the world that brings together 300 scientific organizations and that publishes the journal 'Science', claims that: 'Scientific method is often misrepresented as a fixed sequence of steps, rather than being seen for what it truly is, a highly variable and creative process' (p.3).

Gauch argues that the entire scientific community has a single set of shared principles and that each scientific specialty has its own set of more or less distinctive techniques. In his conception, the scientific methodology has two components: the general principles of the scientific method (the use of inductive and deductive logic, probability, parsimony and the generation and testing of hypotheses) and the specialized techniques of each specialty.

I have been in favor of this approach as it seems much more normal for me to define the 'scientific method' by universal principles (e.g. the application of the deductive and inductive logic), rather than by specific procedures (e.g. the application of the experiment). Just as it seems more normal to me to evaluate and improve sociology as a science by the criterion - apply or not the deductive and inductive logic rather than by the criterion - apply or not the experiment.

Returning to my older dilemmas – whether sociology is science or not and whether sociological research is scientific or not (in this approach of science). The answer is yes. Sociology applies, like the other sciences, the deductive logic (for example when we use general theoretical models in particular situations - let's say when applying a theory of poverty to decide if the Roma in Gârcini are poor) and the inductive logic (for example

when we leave from specific cases and we get to an inferred model - say in grounded theory studies).

Then, because we do not have a way to generate certainties, sociology, like the other sciences, talks about probabilities and uses statistics - in their stronger or weaker forms. For example, the weak statistics when we say 'most interviewees ...' or the strong one when we say '87.5% (with an error of \pm 3%) of those questioned ...'; or weak probabilities when we say 'the X pattern of disease experience is more likely than the Y model in the subjects ...' or the strong ones when we say 'there are 95% chances that the percentage of those who vote for Z is ...'.

And the situation is similar for the other principles listed by Gauch. Thus, as long as we follow these general principles, it is a science and we can apply, invent, perfect and combine within sociology whatever methods and techniques fit our study object. It is a much more effective choice than trying, unsuccessfully, to match our procedures to a narrow and rigid recipe conceived to work for the inclined plane or for the electric circuit.

Thus, in sociology we produce scientific knowledge if we follow the general principles of the scientific methodology and if the research tools (all, not only those we measure with) that we use are valid and reliable. Because 'in the socio-human field, the distance between the common knowledge and the scientific knowledge is smaller than in the areas specific to other sciences' (Rotariu and Ilut, 1997, p. 14), we should also produce something that differs from the common knowledge (for example, a sentence is scientific if it is accurate) or from other forms of knowledge (e.g. philosophical or artistic). I have mentioned these latter differences in order to distinguish the results of so-called 'qualitative' research (e.g. stories, visual essays, etc.) from scientific knowledge.

5. Qualitative versus Quantitative

I have already written about what I call 'one of the flaws with the most important methodological consequences' (i.e. the imposition of unjustified specific methodological rules based on philosophical trends). I will now describe what I call 'the biggest mistake with the most important methodological consequences' (i.e. the extrapolation of the use of the qualitative and quantitative terms from the methodological level to the level of philosophical approaches).

I will use Professor Rotariu's expression (2016): the qualitative and quantitative terms in methodology have undergone an illegitimate expansion being used to designate ontological and epistemological approaches of the social and the social knowledge. There are qualitative and quantitative data, the rest of the labels containing these terms are wrong (from the qualitative method, to quantitative methodology, from the qualitative research to quantitative paradigm, etc.). We have accurate names for each methodological aspect wrongly labelled. For example, for the quantitative and qualitative analysis, we have content analysis and coding; for the qualitative interview we have the unstructured or semi-structured interview; Instead of mixed method we can say triangulation, etc. And the 'quantitative research' and the 'qualitative research'

do not exist. There is only sociological research with all sorts of methods and techniques of collecting, analysing and interpreting qualitative and quantitative data used according to needs and possibilities.

Certainly the names of 'qualitative research' and 'quantitative research' exist and they will probably always exist in the literature from Romania and around the world. They are so successful that many people strive to fill them with content. In my opinion, 'qualitative' exists only in the term 'qualitative data'.

Thus, there are qualitative data (textual or verbal and visual) and quantitative (numerical) data. In sociological research, qualitative data (quantitative are only the numerical data such as age, income, number of children, etc.) predominate. As Professor Rotariu (2016) points out, because of the characteristics of those that are the subject of our interests, most of the data gathered, even with the help of the questionnaire, are in their primary form, the qualitative data (it is only that they encode and quantify easily because they are gathered in a structured form).

In fact, each of the data collection methods (experiment, observation, questionnaire survey, interview, and collection of social documents) can generate both quantitative data and qualitative data. The same can be said about each technique of these methods. But, there are some that generate rather qualitative data (e.g. the interview method or the unstructured technique of observation). This made Professor Rotariu (2016) claim that the 'qualitative methods' and 'qualitative techniques' would be acceptable. But, I maintain my opinion that only data can be said to be qualitative or not.

After the 'quantitative' and the 'qualitative research' have been invented, many methodologists have eagerly formulated specific rules (usually these rules are motivated by invariable epistemological arguments as I have shown above). Thus, it has come down to abnormal situations where researchers are mired with dilemmas like - can they use the questionnaire in a qualitative case study approach?, Is it wrong to count how many interviewees mentioned the X theme?, Can you use content analysis (with categories that are a priori established) in an exploratory research?, If I ask sociodemographic questions is my research still qualitative?, The Delphy technique is qualitative, quantitative or mixed-method?, By the quantitative research do we only test theories and by the qualitative we only generate theories?, If you ask open questions in a survey, can your research be said to have become a mixed-method? I have just listed a few of the questions launched by specialists for debate on the ResearchGate platform.

I do not understand at all why we had to split the research methodology into quantitative and qualitative, and, consequently, I find weirder the current attempt at finding standard formulas for combining them into so-called mixed designs. I do not understand what we can gain from this dichotomy. We need both approaches to empirical reality, our knowledge and understanding is most often incomplete if one of the approaches is missing, we often use them both in the same piece of research, etc. Then, irrespective of the approach, the stages of the research are about the same: we collect qualitative and quantitative data with structured and unstructured techniques (e.g. we collect qualitative data by open questionnaire questions or quantitative data such as the respondents' age in unstructured interviews); we process qualitative and quantitative data by classifying using inductive or deductive categories and, when

relevant, we quantify them (see index scales building); we analyse qualitative and quantitative data by showing the relationships between categories and, when relevant, we count and we measure; we interpret data by confirming or refuting theories, discovering theories, etc.

I do not understand why we should not use and combine, when needed and when possible, any type of data and any of the available methods and techniques. I do not understand why we should choose any complicated and unclear mixed research design, when we can simply use and combine whatever is methodologically available to us. Why could not the questionnaire be used in a case study? Why could we not count in an ethnographic piece of research?

It is true that sometimes we need to measure and sometimes we need to understand, it is true that sometimes we test hypotheses using statistical tools and sometimes we do not do it at all; thus, it is true that we do not always need every method, every technique, every type of data. But our study object and our goals related to it are so diverse that we also need a great methodological diversity. I do not want to eliminate any possibilities or approaches that we have in social research; I do not want to impose objectivity where it is not possible; I do not want to forget the context when we have to take it into account and so on and so forth. I only claim that we have imposed ourselves some rigid boundaries, such as - this is 'quantitative research' so in it we have only numbers, measures, statistical analyses, percentages, significance tests, graphics, etc. or this is "qualitative research", so, I do not count, measure, I only interpret subjectively, I have few subjects, etc. And, more recently, as I have shown, other strict methodological designs are imposed on researchers: after we have accepted that sometimes we can and at other times we have to combine the 'quantitative research' with the 'qualitative research,' we have started imposing new limits, such as the exact formulas of mixedmethod approaches - concurrent-type, sequential-type, etc. which combine the quantitative with the qualitative and vice versa.

I think these are useless and dogmatic. We should combine whatever we want, as we want, when it is possible! We should do the 'qualitative' analysis of the answers to the open questions in the questionnaire if we need it, we should test on larger populations the hypotheses resulting from the study of a few subjects if this is what we want and other similar things without worrying about the methodological approach to be chosen. As I have already shown, most social data are qualitative (even in the 'quantitative' studies); most of our research asks for 'qualitative' analysis (even if it is only thematic) as well as 'quantitative' analysis (even if it is only about counting), etc. We use inductive and deductive logic in each research step (be it called 'quantitative' or 'qualitative'): we discover inductively or deductively research objectives, hypotheses or theories; we also use induction in 'quantitative research' as well, for example, when we inductively generalize research results from the sample level to the entire research universe; we use deduction even in the inductive generation of theories (in grounded theory studies).

Of course we have to guide our research by epistemological and theoretical approaches and of course that some research objectives and some theoretical directions ask for specific research methods, but, at the same time I believe that we need to leave more space and freedom as far as methodological issues are concerned. Just as I have

tried to show, we have too frequently and unjustifiably imposed all sorts of methodological rules based on philosophical, epistemological or ontological approaches. Does anywhere the positivism say that qualitative data cannot be used in research? Does the interpretivism claim that if you want to understand you do not have to count?

My opinion is that we should free social research methodology from unnecessary and unproductive burdens and classifications. Research is a creative process. By inventing design rules, by imposing limits, we prevent methodology from developing and improving. As early as 2017, I started teaching research methodology as a whole (without ever pronouncing in front of the students 'quantitative research' or 'qualitative research'), by showing the inductive and deductive logic of research, the way they are applied and combined at each stage of research. In this way, students can learn that it is good to use every method and technique that we have in social research when it fits and if it complies with the associated methodological rules, without worrying about what strategy or design of research they apply. I have found out that I am not alone in this approach, that there are authors who think the same and who propose similar things (see Onwuegbuzie and Leech, 2005, Ercikan and Roth, 2006, Hanson, 2008, Vogt, 2008). I want to find myself a place among them and to redefine the methodology by going back to where the wrong path was chosen, where it created two parallel paths - the so-called 'qualitative' and 'quantitative paradigms'.

6. A New Perspective on the Old Methodology

I consider methodology a whole where researchers can use any technique that fits in any combination without worrying about the choice of the approach they adopt. I will briefly describe here this perspective on the sociological research methodology.

The stages of every piece of research are: goal setting, data collection, data processing and analysis, and data interpretation. In order to set goals, you collect information in the field and at the library, and sometimes you are doing exploratory research. Depending on the goals, you collect data.

The methods of data collection in sociology are: the experiment (even if it is not used too much), the observation, the survey, the interview and the collection of social documents. The techniques of each method are varied and still expanding. For example, we have a structured interview, as well as a narrative interview; we have already available documents, such as, a collection of biographies, as well as elicited documents such as some drawings made by subjects at the request of the researcher. Each applied method, technique, and instrument comes with a set of rules (e.g., rules for constructing the questionnaire or rules for collecting provoked documents) and it can generate all sorts of errors (for example errors caused by the order of questions in the interview or errors generated by the presence of the observer in the field).

When applying structured techniques of data collection methods (in descriptive research, when you do not have much time to spend in the field, or when you have a theory that provides operational definitions that you are satisfied with, or when you study a large number of people or when looking for statistical representativeness and

the generalization of results or when you want to give numerical precision to the results), you need some theoretical framing and operationalization. When you want to test your hypothesis (in explanatory research), you need theoretical framing, operationalization, structured data collection instruments and statistical sampling. When applying unstructured data collection techniques (in descriptive research, when you have a lot of time to spend in the field, when you do not have a satisfactory reference theory, when studying a small number of people), you need triangulation and theoretical sampling and saturation.

Because 'science is not possible without simplification,' we retort to data processing (we change their form, size). Thus, data can be classified (i.e. categorized) and / or quantified. We classify the data in order to reduce it (for example, when we have hundreds of interview pages or hundreds of photos). Data classification can be performed by using a priori categories (this is what we find in the 'quantitative' literature as 'content analysis') or emergent categories (this is what we find in the 'qualitative' literature as 'coding'). Data classification (i.e. content analysis and coding) can be done on data obtained by any method and it is useful for less or no classified data (i.e. obtained by less standardized techniques). For example, it can be applied on the answers to the open questions in the questionnaire, on interview materials, on unstructured observations, or on a collection of themed films downloaded from You Tube. Standardized data collection instruments provide already classified data. Classified data are easier to quantify. Once classified, the data may (it is not necessary to be) quantified (what we find in the 'quantitative' literature as 'indices'). The more standardized the data-collecting instruments, the easier to quantify the data.

Data processing through classification and quantification allows the data to be analysed (i.e. to be examined). So, we can count, measure and establish relationships between classified and quantified data. Data classification allows the counting operation. Quantification of data allows the measurement operation. Not everything can and is worth counting, quantifying and measuring. For example, it is not too relevant to count the data obtained from focus groups. What can be quantified and measured are, for example, religiosity, femininity, attitudes, etc., but it is not right to quantify, for example, the quality of a person (see the position of researcher or professor quantified with CNATDCU-type documents). I think I took this idea from Professor Rotariu (2016). Just as I think I did with a lot of other ideas that are part of my current methodological reflections. Many of professor Rotariu's ideas have become part of my revelations and I find it very hard to know when to quote and when not.

Resuming, social knowledge is incomplete if we limit ourselves to quantifying opinions, attitudes, behaviors, etc. For example, it is not enough to tell your beneficiary how many people intend to vote for him/her if you do not tell him/her why some people vote for him/her, why others do not vote for him/her, how the voting option is formed, etc. Just as it will not be enough to tell him/her who and why votes for him/her if you do not tell him/her how many votes for him/her. Counting and measuring can give accuracy and precision to the findings, but, we do not have to count or measure data to produce scientific knowledge. Any operations, instruments applied on data may produce validity

and reliability incidents. The more you apply, the more exposed to risks you are. By quantifying, counting, measuring, as with any other operation or instrument applied on the data, you can also produce errors (for example, with the CNATDCU type documents you can evaluate as poor a good researcher).

Data interpretation involves the formulation of descriptive, explanatory and /or predictive sentences (depending on the research objectives) resulting from the processing and analysis of collected data. Thus, scientific information (for example, who will Romanians vote for in the future elections or what the Roma think about contraception) and /or theories will result. The theory can be tested by research (or completed, modified) and /or it can be generated during research.

All methods, techniques, and research instruments applied at any stage of the research must be valid and reliable. For example: for the very simple operation of counting the people who appear in the drawings of the subjects, I have to make sure that I count the number of people and not other things that seem similar to persons in the case of less talented drawers.

I have already mentioned that I have started teaching methodology as a whole by developing each of the elements listed above. I would emphasize once again that I did not feel at any moment the need to use the phrases 'quantitative research' and 'qualitative research', that it was not difficult for me to remove them from the methodological vocabulary. In order to make it easier for students to learn the stages of sociological research, I tried to include them in a scheme (see Figure 1).

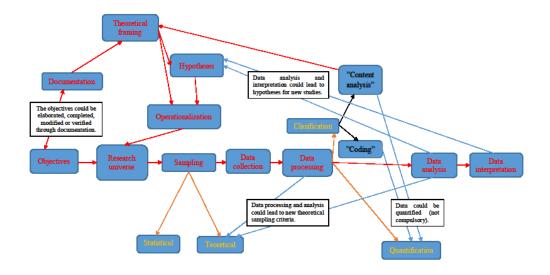


Fig. 1. Stages of sociological research

7. Conclusions

In my opinion, sociological research should enjoy its particularities and difficulties and it should not try to become anything other than it is. Researchers should focus more on the methods and techniques they work with, they should perfect them, and even invent others suitable to the field where they work without worrying that they would not have a correspondent in the research in physics or other fields. They should use them when they fit their objectives, budgets, beneficiaries, etc. and not some philosophies that come to them distorted. What I suggest is about methodological freedom and creativity and it is about making complicated things simple.

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