Grounded Theory, Sensitizing Concepts, and Computer-Assisted Theory Building

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The classical approach in sociology concerns the use of hypotheses and hypothesis testing processes to determine what, if any, effects can be attributed to particular factors in the field being studied. But other scholars suggest another procedure which eliminates the presence of previous hypotheses and privileges an interpretive – as opposed to a hypothetic-deductive – approach to data analysis. However, in the latter approach crucial questions appear for the researcher: how does one approach the data and data analyses to ensure the credibility of findings? Blumer's suggestion about «sensitizing concepts» seems to be appropriate in order to reach not only a reliable interpretation of data but also the possibility of «building theory». This process could be supported by computer-assisted research, namely using *NVivo* as dedicated software for qualitative analysis. However, not all kind of operations can be performed by the computer, no matter how appealing the market offering may be. Every single passage has to be monitored, and nothing can be taken for granted.

Introduction

The presence of many – sometimes contradictory – theories is arguably considered a strength in the social sciences. The multitude of available theories today makes it seem impossible to have a grand theory, a specific unique theory that may be applied to all situations at all times in order to explain social phenomena. Therefore another solution becomes more and more reliable: to build a theory starting from data rather than from theory-driven hypothesis testing. The latter opens a new debate between competing and perhaps conflicting positions: the classical approach through previous hypotheses, and an orientation influenced by *Grounded Theory* (Glaser and Strauss 1967; Charmaz 2006; Corbin and Strauss 2008), which eliminates any kind of hypotheses and offers a range of different scientific views, also thanks to the added presence of «sensitizing concepts» (Blumer 1954) coming out from empirical results, therefore not previously established but inserted after the fieldwork.

1. The *Grounded Theory* approach

Actually, in adherence to the *Grounded Theory* (Gherardi and Turner 1987; Gherardi 1990) the aim is to build sociological theory starting from the collected data: before the analysis the researchers are involved in the construction of a list of *nodes*, keywords, items, considered meaningful for both the analysis of material

and the purpose of the research. A first draft of this list can be useful to check if chosen «sensitizing concepts» are present or not in the contents of interviews. The purpose is to construct a reliable grid of concepts for the analysis and interpretation of data, a kind of «dictionary», formed by words selected to support the qualitative approach.

Until some decades ago scholars could not rely on any applicative software to assist their work. This was essentially due to two related factors. On the one hand, computer programmers (and above all the companies which produced and distributed software) had very little interest in creating programs that would be used by just a few scholars. On the other hand, researchers themselves did not endorse a strong request for computer programs, because they saw in the computer-assisted procedure a too rigid (and basically quantitative) cage for the richness and depth of their qualitative data.

Now things have changed in a relevant way. Qualitative research has been rediscovered and is attracting a growing interest, while the widespread use of personal computers has contributed to modify in a radical way the behaviour of qualitative researchers who, starting from word processors, have learned to appreciate computer resources. Today, more than in the past, qualitative sociologists are conscious that new technologies can have an enormous impact on sociological methodology because they increase sources of knowledge, and create a large amount of information. However there is a real knowledge revolution with an excess of information, and data to verify, but specific software can help analytical procedures in order to prepare more convincing explanations, and to construct more interesting interpretations. It is not by chance that Paul Boghossian (2006) has suggested an overcoming of constructionist approach to come back to the empirical data in themselves. Of course, the existing computer packets, and probably those that will developed in the future, are helpful tools but cannot substitute for the work of a researcher, engaged in a theory building process (Urquhart 2007, pp. 348-350). The *Grounded Theory* approach refers exactly to a research process where «the researcher analyzes the data and identifies analytic leads and tentative categories to develop through further data collection. A grounded theory of a studied topic starts with concrete data and ends with rendering them in an explanatory theory» (Charmaz 2007; 2023).

1.1 Sociological implications

Many programs of qualitative analysis have been developed to respond to theoretical demands of contemporary researchers. But rather than producing results in the way that statistical processing packages analyse data sets and produce statistics, QDA (Qualitative Data Analysis) programs (Lewins and Silver 2007) are power-

ful supports in treating and controlling data. In the richness of elements offered by qualitative contents researchers can find new concepts, new categories, raising other issues, and generating theories.
For instance a software like *NVivo* or *Atlas-ti* supplies many functions besides retrieval and encoding. *NVivo* (Coppola 2011), in particular, supports qualitative research, and it is classifiable, at least in part, as tailored to the construction and representation of theory. The descriptive/interpretative approach is based upon the techniques of «cut and paste», to say «cutting» from the whole those segments of text referring to a certain topic and then «pasting» them so as to gather all materials and to compare different segments referring to a certain topic. In the approach based upon the construction of theories, the researcher's intervention aims at drawing from data the elements of a new theory through observation and analysis, through the definition of concepts and categories.
According to Bryant and Charmaz (2007, 24), however

> ultimately the research process must remain under the control of researcher(s). Glaser and others are correct to be wary of use of software, particularly when researchers come to rely upon it. Yet, cases abound where use of some form of electronic repository, plus sorting and retrieval facilities has proved useful. Researchers must understand both the benefits and the dangers of use (and reliance upon) software support.

In any case the data are the core of all investigations.

2. The importance of empirical data

All scientific activities, being a process of knowledge acquisition, cannot ignore a close relation with empirical data, which is to say with the empirical events that constitute the immediate object of a discipline such as sociology. This relation with data may be of two types: a direct or an indirect one. A social researcher can directly collect data for his study or he can take advantage of data collected by other researchers within a commonly shared research project. However, a personal commitment of the researcher in collecting data is appreciated, in order to be able to interpret and analyse what emerges from the empirical fieldwork. In this way, major external influences of many different researchers can be avoided.
It is in the choice of «sensitizing concepts» that researcher plays a key role because «such theoretical categories can sensitize the researcher to identify theoretically relevant phenomena in their field» (Kelle 2007, p. 207). This helps to distinguish between commonsense categories, coming from commonsense language and knowledge, and directions along which to look in a methodological and heuristic perspective. As a matter of fact

sensitizing concepts can fulfil an important role in empirical research, since their lack of empirical contents permits researchers to apply them to a wide array of phenomena. Regardless how empirically contentless and vague they are, they may serve as *heuristic devices* for the construction of empirically grounded categories (Kelle 2007, 208).

However, one thing is sure: the importance, and centrality of empirical data in social research. This cannot be denied without consequences on the usefulness and reliability of sociological analysis. Therefore, if everything starts from data, the practice of collecting data must be considered as a grounded and qualifying moment of the scientific activity, from which the entire development of further steps within research is depending.

3. Proposing a «building theory»

In almost one century of sociological research, in different geographical and political environments as well as social and economical diversities, the prevailing approach was to refer to one or more theories and/or to one or more guiding hypothesis. For centuries a Galilean or Cartesian perspective has always been followed, that is to say a precise theoretical structure to be verified by experiments and proofs in order to examine the response on an hypothetical level. Only recently alternative perspectives have been suggested, which may turn upside down usual current research practices. Therefore, the actual research praxis based on a former theoretical setting of concepts and eventual relation among given variables, either dependent or independent ones, would change in favour of a direct face-to-face approach, thus involving motivations, behaviours and attitudes of social actors in the process of research-hypothesis construction. That is to say, reading data before formulating hypothesis. At this regard, some sociologists maintain that it is no more necessary to formerly hypothesize bindings between phenomena, because all necessary information for theory construction in sociology are already shown by data, and through the *Grounded Theory* the process of constructing theory can be carried out the other way round: starting from collected data on fieldwork (Strati 1997; 1999; 2008), the theory is data-oriented, read and assembled.

The methods of qualitative analysis are mostly characterized by the collection of an enormous quantity of data which are rich in qualitative aspects, variables, and differences. In the richness of such elements offered by life histories, for example, the researcher often risks being engulfed by the quantity of data, and not always able to deepen the research as much as one would like. Furthermore, while the phases of quantitative research are fairly well structured, in qualitative approach – and especially in *Grounded Theory* – the collection of data, the choice of categories, and the building of theories don't follow a linear path, but imply a circle

that recurs repeatedly during the analysis. Afterwards there will be new categories, raising other issues that can be faced by means of new data, thus generating a very complicated process. The categories developed during the research produce further classifications. Therefore the use of computers and specific programs is an important support not only relieving from a series of repetitive actions in the text codification but also helping with instruments tailored to deal with categories of concepts, and at the end with theories.

4. Reconsidering *Grounded Theory*

In the context of «building theory» process, *Grounded Theory* has gone through many and significant changes since its first introduction. "Quite apart from the question of whether it is desirable to defer theoretical reflection, the notion that one may conduct research in a theory-neutral way is open to some doubt" says Alan Bryman (1988, 84-85), a quantitative and qualitative methodologist. Besides

> there may be considerable practical difficulties associated with field-work conducted within a grounded theory approach. For instance Hammersley (1984), drawing on his experience of conducting a school ethnography, has suggested that when field-work entails tape recording of conversations, interviews, lessons, and the like, the time needed to transcribe such materials may render the grounded theory framework, of a constant interweaving of categories and data, almost impossible to accomplish. One might also question whether what the grounded theory approach provides really is a theory. Much of the discussion of the approach and its associated procedures seems to concentrate on the generation of categories rather than theory as such (Bryman 1988, 85).

Some changes had been initially co-proposed by Glaser and Strauss (1967), and then developed separately by these two, thus generating two different groups following one or the other scientist.
Sometimes, the contrast between the two founders of *Grounded Theory* has become quite heated and probably over the top, notwithstanding a few statements of agreement in order to calm down the bitterness reached within the scientific face-to-face debate. According to Bryant and Charmaz (2007, 33),

> through developing this method, Glaser and Strauss aimed to provide a clear basis for systematic *qualitative* research, although Glaser has always argued that the method applies equally to quantitative inquiry. They intended to show how such research projects could produce outcomes of equal significance to those produced by the predominant statistical-quantitative, primarily mass survey methods of the day. What they also achieved was a redirection of positivist-oriented concern among qualitative researchers seeking reliability and validity in response to criticism from quantitative methodologists. Glaser and Strauss offered a method with a solid core of data analysis and theory construction. Their method contrasted with the strategy of those who sought procedural respectability through collection of vast amounts of unanalysed, and often un-analysable, data.

After Strauss died, Glaser has been holding the stage with his strong committed attitude and fully oriented towards his *Grounded Theory*. Barney Glaser (1992) has pushed through his scientific and methodological option far off the former threshold, which was already quite revolutionary for sociological tradition in the US, and not only there. The most problematic issue of *Grounded Theory* is the total absence of an orientating perspective in sociological research. In other words, if the idea of giving up detailed hypothesis for the research may be considered, not the same can be said regarding other potential inquiries to introduce in the guidelines of the research. However, once refused the traditional initial research-hypothesis, an *incipit* can be a good solution to start and, though temporary and open, it can represent a referring point, a focus, an orientating spot, a common basis from where inquiries can take off. Therefore, reconsidering *Grounded Theory* is even more possible if we take into account what Herbert Blumer maintained, the same Blumer who criticized the supposed absence of methodology of Thomas and Znaniecki (1918-1920) in their famous qualitative fieldwork on *The Polish Peasant*. On this note, as Blumer suggested (1954, 7), «sensitizing concepts» can be a good solution, so to have at least some conceptually defined contents, which may represent some sort of guiding lines, or a rough draft that, even though of generic references, could be able to guide operative choices during the research. The following section addresses Blumer's idea of «sensitizing concepts» in use.

5. «Sensitizing concepts»

Blumer's suggestion appears to be quite convincing because it avoids any absolute conceptualizing, or abstractly formulated ideas, which may turn out to be of no relation to empirical data. It is not by chance that especially sociologists open to qualitative solutions are keen on using «sensitizing concepts». Some basic hardness may be restraining the research into a pre-definite course, instead of leaving it open to unforeseeable resources of data. Besides, as Blumer maintains, «sensitizing concepts» offer a wide general sense of reference and guidance in approaching empirical instances. In such a way, there is a close relation between concepts and data.
The use of «sensitizing concepts» can be very diversified. Concepts can be taken directly from data, that is the case of *Grounded Theory* purists, who refuse any other solution that does not start from data (the head of the list in this integral and militant approach is Barney Glaser). According to other scientists, «sensitizing concepts» must be confronted with data and they have to be formulated starting from already existing sociological literature on the subject. In this way the relation with empirical data is quite loose, because conceptualization comes before any data collecting. However, there is another solution that cumulates advantages

coming from the store of scientific knowledge, previously accumulated, and empirical information collected. It means to keep memory of the previous research made on the same subject and formulate a first draft of some guidance concepts, or «sensitizing concepts», to be verified on fieldwork of the research. In operative terms, the researcher can propose his own results, at least at a first step, or results acquired by other researchers on the same subject. Therefore, the researcher can prepare a list of temporary concepts, as much as it is possible.
In the second phase, the temporary list of concepts is compared with empirical data collected, in order to verify, through a simple table of presences and absences related to single concepts, whether or not conceptual formulas can be found in the texts, in interviews, in the data-base at disposal. Such verification can be carried out with a certain precision on all data or on just a significant part of them. However, before setting up a definite series of «sensitizing concepts» to be used in subsequent data analysis steps, a good approach could be that of discussing every choice with all researchers and collectors involved in the research in order to decide which concepts should be definitely included, excluded or added. If research is conducted by an individual the choice can be made by the same person in different steps, one after another, in order to reach a final decision. Actually, in Kelle's (2007, 209) terms,

> a wide array of sensitizing categories from different theoretical traditions can be used to develop empirically grounded categories. Many researchers find it easier to let categories emerge if one stays with one particular theoretical tradition, however Glaser is certainly right when with his frequent warnings that the utilization of a single pet theory will almost necessarily lead to the neglect of heuristic concepts better suited to the specific domain under scrutiny. There are heuristic concepts which capture a broad variety of different processes and events and nevertheless may exclude certain phenomena from being analyzed: thus the extended use of concepts from micro-sociological action theory (e.g. actors, goals, strategies) can preclude a system theory and macro-perspective on the research domain. A strategy of coding which uses different and even competing theoretical perspectives may often be superior to a strategy which remains restricted to a limited number of pet concepts. Furthermore, analysts should always ask themselves whether the chosen heuristic categories lead to the exclusion of certain processes and events from being analyzed and coded, since this would be an attribute of a category with high empirical content which refers to a circumscribed set of phenomena.

6. Proposing a procedure

The following procedure represents a first important brain-storming, a sort of theoretical-empirical confrontation on methodology to use, on the key-points of the research, on major themes to analyse. The flux diagram of this sociological work could be as follows:

Reading through existing bibliography on the subject
↓
Formulation of a first draft of concepts
↓
Quick confrontation of the initial list of concepts and empirical data collected
↓
Discussion of the first draft with collectors and researchers
↓
New formulation of a list of «sensitizing concepts»
↓
Starting the analysis procedure on the basis of chosen «sensitizing concepts»

Through this solution it is possible to avoid the enclosure of sociological activity within a too tight conceptualization, so that scientists have clear references, when approaching data, without the risk of getting lost in a wide empirical variety, as if data could speak by themselves. In order to overcome such die-hard positivistic utopia, other ways have to be discovered, with less risks, so to have some references to get oriented by, as a conceptual compass that constitutes a commonly shared reference among scientists, even without pretending a one-sense scientific analysis. Obviously nothing can avoid making the way the other way round, if necessary, that is to say to renounce to the conceptual drafts considered as definitive at an initial phase. In other words, the list of «sensitizing concepts» does not have to be unique. The list can change one or more times, until a satisfying and fertile formulation of data interpretation is found. Also in this case it is not possible to speak in terms of a saturation of the research, because new subjects of knowledge can be useful for a convincing knowledge of social reality. Actually, this possible diversification in the construction of concepts seems to answer better to the complexity and variables of the social world, which is not easily submitted to pre-constituted and restraining images. On the other hand, ingenuously presuming that everything could come simply and naturally from data is not an option which helps to legitimate scientific foundation of a qualitative approach. Finally, the conceptual dimension of inquiry cannot be completely postponed to the end of analysis, because singular situations do not produce conceptual categories per se. Certainly, researchers should avoid superposition of incautious and logical demonstrations completely out of empirical reality. However, the opposite solution cannot be accepted as well, because it risks to open the way to quite diverging lectures and easily subject to personal influences. Concepts and procedures would keep under control such risks, operating a mediation between theory and empirical activity, between ideological assumptions of the researcher and freedom of the research, between methodology thoroughness and knowledge autonomy.

Besides, another fact has to be considered: no inquiry is perfect, neither for methodology nor for contents. We can easily hypothesize that all acknowledgment activity is subject to indefinite perfectibility. Such perfectibility concerns at first the «focus» of each scientific undertaking, that is to say the used «set» of concepts. Science cannot be without concepts, neither can scientists endlessly discuss or renounce to assert concepts even if they are temporary and revocable, waiting for better solutions.

7. Abduction and retroduction

The suggestion related to the previously showed flux diagram of sociological work accomplishes two functions: on the one hand it allows concepts to constitute an input, which means an introduction of tools finalized to an adequate knowledge of reality; on the other hand it can also work as output because the results are directly emerging from data. The modality of «sensitizing concepts» is a sort of abduction or retroduction (Fann 1980) that explains phenomena starting from facts but not only in an inductive way. According to Peirce (1868; 1984), the father of pragmatist movement, one abduces or retroduces with the acceptation of a hypothesis in order to explain a given phenomenon. However, the starting point is always the formulation of a hypothesis that has to be verified by facts. This is Peirce's logic of science. Furthermore, according to Peirce a concept is significant when it produces effects. For «sensitizing concepts» it is quite evident that they are directly related with data. Finally, categories (or concepts) have to be determined both at the beginning and at the end of the analytical procedure.

One might say that knowledge is based on observing facts (Peirce 200, 289). The following example can be useful: observing an ink-pot, this is a fact; however, before one can say that, one can have sensitive impressions, in which there is no idea of an ink-pot, or of any separated object, or of a self, or of the act of observing; and the fact of seeing an ink-pot in front of oneself is the outcome of a number of mental operations over such sensitive impressions. Only when the cognition has developed into a proposition or idea over a fact, one can directly control the process. As a matter of fact it is an idle question to discuss legitimacy of what cannot be checked. Therefore, all observations should be accepted as they occur. In a certain way, Peirce's (1931-1958) use of the language is quite old fashioned, and above we have presented a paraphrase of his speech, but the intuitions contained are significant and anticipate times. Particularly explicit is the following statement: «The first thing to do is to propose a questioning hypothesis. Secondly, one should verify feasibility limits with experimental tests». Hypothesis is an instrument of Peirce's scientific and philosophic work (2001, 290). He maintains

that with hypothesis he does not only mean a supposition on an observed object; in particular, he means that the initial position of a hypothesis and how is it considerate, either as a simple question and at any degree of faith, can be seen as an inferential step that Peirce suggests could be called abduction. This includes the preference for one hypothesis among others to explain the facts, until such preferred hypothesis is neither proved on a previous relevant knowledge, nor verified over other hypothesis already being proved. Finally, Peirce (2001, 304) mentions some of the problems from absolute absence of hypothesis in research. There are scholars who affirm that no hypothesis can be accepted, not even as a hypothesis, until its rightness or wrongness can be directly perceived. Peirce holds the opinion that this is what Auguste Comte (the social philosopher who actually first formulated this) had in mind. Of course, this abduction presupposes that we should believe only what we see, and there are authors who maintain that to make predictions is not a scientific attitude. Therefore, this should also mean that expecting something from research is not a scientific attitude as well. One's opinion should be limited to what effectively can be perceived, maintains Peirce, as well as he seems to be perfectly aware that such a position cannot be coherently held. In a certain way, this position is auto-denying because it is an opinion based on more than effectively can be perceived.

8. The problematic relationship between concepts and theories

As we well know, in sociology there is a double context for scientific activity: the context of discovery and the context of justification; «sensitizing concepts» are meant to satisfy both needs of discovery, that is to say both of the initial inquiry non-hypothesis based, and of justification, that is to say of proof and experimentation.

As a matter of fact, if theories represent a structured whole tending to orientate the inquiry and explain phenomena, the concepts are used to ground theories and give them a body and an articulation. Theory can't be without concepts. Concepts do not present a valid explanation of reality. What happens in qualitative research, as described above, is no more than – with some necessary change – rendering concepts operative, almost as well as in quantitative approach, where concepts are transformed into questions to be asked in a questionnaire. Instead, in the case of «sensitizing concepts», these are inserted as key-concepts (or codes or labels or, according to *NVivo*, *nodes*) as side text of analysed texts, which is to say to be codified according to the list of *nodes* previously individuated (some can choose to code a text only according to protocols or inquiry transcriptions, without referring to any previous list of abstract and/or real elements).

Some qualitative sociologists refuse to give a definition of concepts and theories in order to keep at a distance from methods and quantitative instruments, but also probably, in order to open the way to test differently the ground research, through inventing new methods, experiencing other non-standard methods. When practising participant observation, for example, there is the preference to avoid previous opinions or basic theories. However, when data collection has another source, such as interviews for example, one may find useful to have a certain degree of formalization, at least as far as concepts and theories are concerned. Turning upside down traditional research approaches is already quite problematic, even if conceptual and theoretical supports are maintained in swapped chronological and hierarchical positions. A more scientifically constructive form can be searched for, and it can emerge directly from an attentive and precise abductive perspective, which may stand for a new way of carrying out scientific research, without denying either induction or deduction, at least to a certain extent. We can start from the following scheme:

Theory
↓
Hypothesis
↓
Data collection
↓
Data analysis
↓
Results

Such a scheme implies that in the passage from theory to hypothesis there is a deductive process; in the passage from hypothesis to data collection there is an operational process; from data collection the passage to data analysis can be done only after data elaboration; results are the outcome of data analysis, thanks to the interpretation process. Finally, from results there is a going back to theory with an inductive process. Therefore, deduction and induction, at a clear analysis, are present both in quantitative and qualitative approach.

But the problem of the viewpoint expressed by the social actor remains open. In a qualitative approach (as well as in the quantitative one) almost everything risks of being left to the analysis and interpretation of the researcher. The issue is quite delicate and of no easy solution. Undoubtedly the biographical interview offers much more *chances* to the interviewed subject than it may occur in a quantitative quick questionnaire.

9. Uses and abuses of computer-assisted procedures

At this point, we should underline that no software, no computer process, can totally replace a social researcher in his scientific work. On the other hand, social scientists know well that their job is particularly delicate, rich in uncertainties, of temporary validity and subject to continuous adjusting.

Nonetheless, the recent widespread availability of software for qualitative research analysis and, in particular, *Grounded Theory* functions oriented has opened new and interesting possibilities, that a few years ago one would not even imagine. The problem now is how to choose among a wide variety of programs. For the moment the more accredited seem to be the German *ATLAS/ti* (www.atlasti.com) and the Australian *NVivo* (www.qsrinternational.com), whose characteristics are similar but with up dating and improvements in permanent evolution. In 2009 *NVivo 8* was launched after the new version of *NUD*IST 6* and *NVivo 7*, both widely known and used. *NVivo 9* has the following feature: texts are not the only data treated, but also images. Some functions are of common use: data storage; coding without limits of labeling; writing *memos,* that means notes on the research field, annotations relative to theoretical and conceptual intuitions to be put in relation; re-coding of data according to new needs; melt together data coming from different researches; auto-code data (even if the best thing to do is to do it personally); work on entire or partial texts; crossing content data with attributes such as age, gender, nationality, income, education, and more. And now a new release is available: *NVivo 10.*

However, not all kind of operations can be performed by the computer, no matter how appealing the market offering may be. Every single passage has to be monitored, and nothing can be taken for granted. A good rule to follow is also not to get accustomed to the software characteristics, so to avoid the risk of planning research on the base of software potential, neglecting other possibilities which are not taken into account just because the software doesn't contemplate it. If a research requires a certain progression of phases, acquisition and treatment of data, the choice should not be taken according to the possibility of the computer machine. Very fruitful, instead, would be to ignore it, in order to look for new and other logics not belonging to computer's algorithm sequence.

Programs such as *The Ethnograph* (http://www.QualisResearch.com) as well as HyperRESEARCH (http://members.aol.com/researchwr), once popular, are now lagging behind. Other programs, even of initial good quality, did not develop significantly enough to keep up with the most widespread software, and this is the case of *Qualrus* (www.qualrus.com).

10. The computer-assisted qualitative analysis

NVivo is a software that originates as a tool for qualitative analysis, and in particular for *Grounded Theory*. It is the outcome of a mutual collaboration of a computer science specialist, Tom Richards, and a sociologist significantly dedicated to qualitative analysis, Lyn Richards. To be true, the marketing presentation of this *software* is promising much more than it really can keep. Furthermore, learning the procedures of this software is not easy and it takes a constant and long application (some months of exercising before one can reach a good knowledge of the program, and in some circumstances it can even not properly work). In other words, after an initial hard phase the outcome reaches good quality. Another characteristic is that not all hidden potentialities of *NVivo* can be understood, even at a distance. The most problematic passage still remains the transition from data to theory. The support of the software is not of great help, in this case. Flux diagrams can be created, as well as cartographies of concepts, mapping of relations among concepts, but the most of the job is coming from the researcher application instead of the computer program. Therefore, especially when the theory has to be structured, almost everything is depending on researcher's inventive more than *NVivo*'s elaboration of results. In a certain way, this is also a positive outcome, because it stresses once again the fact that is the social scientist who prepares the theoretical structure emerging from data, instead of expecting a software could produce theory.

The experience carried out with *NVivo* appears to be satisfying, even if the beginning of the experience requires to undertake the challenge without holding the necessary elements to consider whether the software functions are worthwhile risking. A demo on a floppy disk or a brochure on coated paper is not enough to guarantee the quality of the product. Only an active application can tell something about its reliability. Therefore, it is just like a blind date, which has given, until now, good results. The market of computer-assisted software for qualitative social research is crowded with many different proposals. Only after a decade of experience and knowledge a software can be taken into consideration for social research, otherwise the risk of wasting human and economical resources as well as time is too high.

11. The function of *memos*

Analysis of qualitative data, according to the methodological indications of *Grounded Theory* and its feasibility offered by the software *NVivo*, operates at two major levels: *nodes*, that is to say the key-concepts, and *memos*, that is to say observations, considerations, theoretical and scientific perceptions coming from

data handling. Sometimes one may work a lot, or mainly, on *nodes* and just a little with *memos*, which may be neglected and written very seldom. The absence or insufficient number of *memos* may represent a serious damage for more important operations within the research. As a matter of fact, not only *nodes* can be in relation to each other, but also *memos*, and *memos* can be in relation with *nodes*, thus enriching with no limits interpretive potentiality of researchers. The group of *memos*, but also every single *memo*, is a vital piece of the chain through which one should pass to build theories, attempt interpretations, set significant relations with different parts and results of a research. *Memos* are the traces of our thoughts over the research problems. Such thoughts in progress may change, but can also consolidate, according to: central and marginal variables; principal and secondary ones; with a hierarchy at any level; with the tree system, which defines priorities and gradual differences of the considered elements. The next passage, which defines one or more theories, is the peculiar job of social scientist, who assumes the role of transforming empirical data into abstract theories.

12. An experiment on the Jubilee of the year 2000

Our results of a qualitative research on «jubilant people», to say pilgrims participating in the Jubilee of the Year 2000 in Rome, give a contribution to the sociological analysis and interpretation of a collective phenomenon of mobility (be it religious or not), and to the process of «building theory».

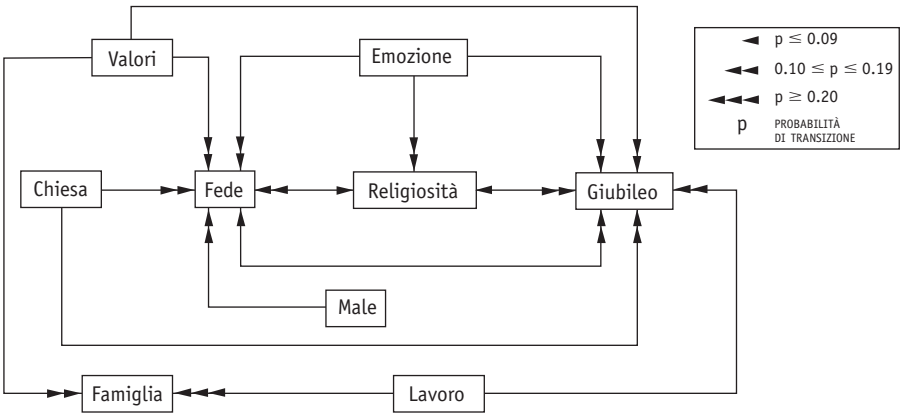
The qualitative research carried out in 2000 and the years after, starting from data collected over 96 pilgrims in Rome (from 18 countries, and speaking 8 different languages) in occasion of the Great Jubilee of 2000 (Cipriani 2003; 2006), has been, as far as we know, the first research in Italy based on *Grounded Theory* and realized with *NVivo*. Actually not all resources of the software have been used. However, the results are to be considered quite promising, even if further interpretations of collected data are still possible. This research shows the outcome of a triangulation between the software *DiscAn*, invented by Pierre Maranda (a Canadian anthropologist), the *Analysis of Lexical Correspondences*, and the results of operations with *NVivo*.

The interviewees, both men and women, presented diverse backgrounds, resulting from their freedom of expression, without any kind of restriction and with no pre-defined questions and pre-coded responses, giving way to a high level of spontaneity in the answers and as consequence a deeper knowledge of some issues concerning the Jubilee.

There are 34 main results coming from qualitative analysis (for instance respect for the official teaching of Catholic Church together with some difficulties in lin-

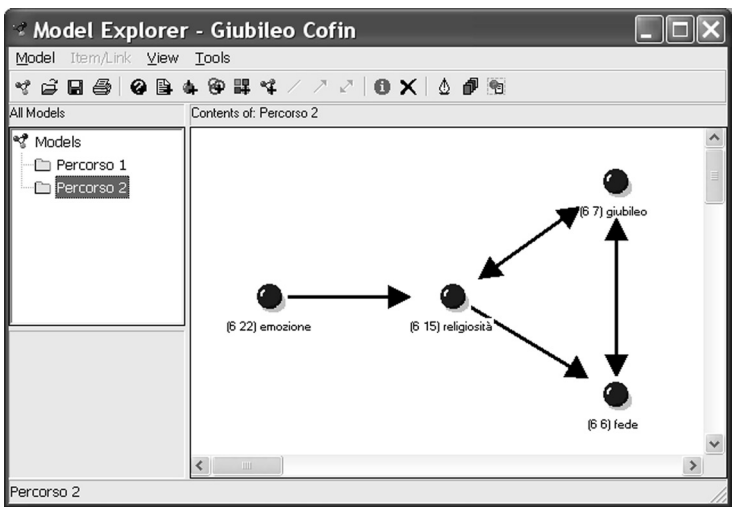
king the ritual aspect to that of indulgence). But when the qualitative and quantitative approach are used simultaneously the outcome is very rich and permits to reach more evidences. To give an example, at the end the most important concepts are situated in the following manner (Figure 1).

Figure 1



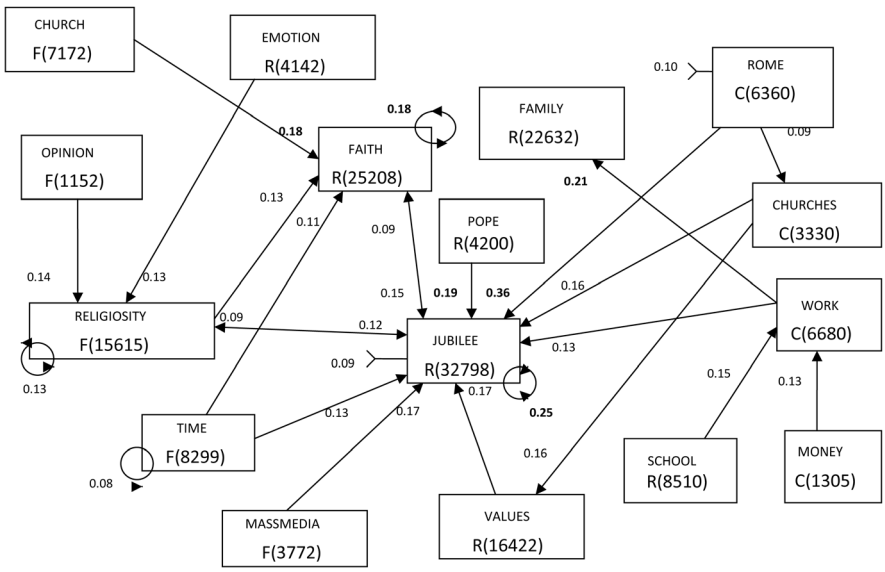
Religiosity (*religiosità*) appears as the core category, together with jubilee (*giubileo*) and faith (fede), and also emotion (*emozione*). Church is marginal, and the family too is peripheral. Another similar graphic construction is suggested through the software *NVivo*, which presents a clear relationship between the same primary concepts (religiosity, faith, jubilee, emotion) (Figure 2).

Figure 2



To complete the illustrations of results a semantic map, created through DiscAn, confirms the key role of jubilee (as a central relay=R), religiosity (as a source=F), and faith (as a relay=R). In this case, however, emotion doesn't seem so relevant: it is a relay but isolated (Figure 3).

Figure 3



The documents gathered could be used for other interpretations too, but our outcome has been useful to build a provisional theory of events based on collective religious mobility. The final theoretical framework is the following, in short (Table 1).

The aim is to show practically that quantitative approach and qualitative approach can be very fertile if treated and balanced together with methodological rigor and scientific attention, which means to aim at keeping the best of both different approaches. These can unveil useful elements over social action motivations, over the preeminent values orienting experience, over more recurring sociological categories in the perception of social reality, and finally, over the connections that motivate most significant choices.

Table 1

Primitive general terms	Primitive particular terms	Secondary particular terms	Statements	Arguments	Scope conditions
Events (pilgrimages)	Religiosity	Faith	If there is a background religiosity a participation in the events like Jubilee is foreseeable	Religiosity is the motivation for pilgrims mobility	Relative applicability
Mobility	Jubilee	Church as institution	It is rare that a non believer could be a pilgrim	If an individual is Catholic he will participate in Jubilee	Possibility of enlargement
Collectivity			Higher religiosity corresponds to higher participation in the events of collective religious mobility	Faith is a good support to participate in pilgrimages	Possibility of modifications
			Jubilee is much more a relay than a source of collective behavior	Faith comes from official Church teaching	Use of a general condition
			Church is marginal in the phenomenon of collective mobility	Motivations to participate in pilgrimages do not come from official Church teaching	No details of specific conditions
				Jubilee motivations are complex	Temporary, local, and undefined applicability

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