The scientific work involving journalism has been characterized, contemporarily, by a double challenge. One is to understand theoretically and conceptually the journalistic activity in a strict sense, as well as its social interactions. Another, to reorient this understanding towards the activity itself, with the objective of promoting improvements in the processes and, principally, in the results of journalistic work, which directly reflect on the quality of information made available for society as a whole.

One premise of this article is that the scientific model from which one studies journalism ends up having a decisive impact on the foundation or critique of its professional techniques, on the one hand, and on the understanding of journalism as a social practice, on the other. However, this social practice contains its own regulations, originating from the pragmatic relations between diverse actors and social institutions, requiring the consideration of certain contracts that regulate the activity.
The objective of this analysis is to look for some juxtaposition between scientific and journalistic methods, in order to discuss effective gains journalism may have with the introduction of scientific research methods as tools for journalistic data verification, as well as evaluating conceptual conflicts that might interfere in a good assimilation of those methods. Our argument in this work basically contemplates two types of questions: a) a summary of experiments involving the application of scientific methods in journalistic investigation; and b) the raising of a set of open questions, provoked by such experiments, that demand greater rigor and analysis for the purpose of promoting a conceptual and systematized gain from their use in journalism.

2. THE APPLICATION OF SCIENTIFIC RESEARCH METHODS IN JOURNALISM

2.1 Public Interest and Public Opinion

The power of modern scientific thinking will inspire journalism in the establishment of its commitment with the facts. According to Schudson, “Reporters in the 1890’s saw themselves, in part, as scientists uncovering the economic and political facts of industrial life more boldly, more clearly, and more ‘realistically’ than anyone had done before” (SCHUDSON, 1978: 71).

Thus we can recognize that the notion of objectivity served, in that period, as a reference for an investigative procedure, based on rigorous observation of facts, in order to offer the readers information that they needed to build their judgments about the world.

Objective facts and the conduct required from journalists were, therefore, a way to offer the audience data upon which individuals could build their own opinions. “There was a ‘public demand for facts’, writes historian Robert Bremner, intentionally echoing the recollections of reporter and writer Ray Stannard Baker: ‘Facts, facts piled up to the point of dry certitude, was what the American people really wanted’ (SCHUDSON, 1978: 72).

Taking into consideration, then, that the facts used to be presented as the central object of journalism and that, in order to know them, the objectivity of the investigative procedures adopted by the reporter would be the guarantee that the news would represent exactly what the audience expected, this became a model that not only found scientific approval for
its mediator logic – of taking facts to people through the news – but was also one of its pillars used to structure the professional practice.

2.2 Precision journalism

One of the first experiments, with a systematized method, of the application of methods with scientific inspiration in journalism was conducted by Philip Meyer (2002), in his book *Precision Journalism*, in 1973, when he applied the methods used by social sciences, particularly, of quantitative basis, to journalistic activity. The author was already using those techniques in the 60's as a reporter in the United States. Moreover, the term 'precision journalism' had already been used by other authors in previous years (GALINDO ARRANZ, 2004: 98).

In Meyer's conception, precision journalism is “the application of social and behavioral science research methods to the practice of journalism” (2002:2). Because of that, the author considers the use of the term 'scientific journalism' also appropriate when dealing with journalism “as if it were a science, adopting scientific method, scientific objectivity, and scientific ideals to the entire process of mass communication” (2002:5). Meyer's intention was that this new set of data verification tools could enlarge the number of topics accessible for journalistic investigation.

Because Meyer emphasized the importance of collection and analysis of statistical data, the computer became an essential tool for this kind of investigation. Mayo and Leshner (2000) confirmed that, between 1989 and 1996, at least one journalist that was a user of computational analysis was among the winners of the Pulitzer Prize in American journalism, with complex themes such as racism in financial loans, medical neglect, and waste of governmental expenses. Sylwester (2001:389) realizes that since Meyer presented his proposal, journalists have converged to the adoption of the scientific method in their reporting, but instead of mastering this precision journalism practice, the most commonly adopted definition was “computer-assisted reporting” (CAR) or, according to Nora Paul (1999), “computer-assisted journalism”, when referring to four types of functions that the computer performs in the activity: reporting, research, reference, and meeting. According to the author, each of these functions summarizes actions that the journalist could accomplish without the computer, but its use may accelerate, simplify or expand the reach of the work.

The fact that the computer and its set of software have become tools for everyday use in the activity has made the idea of computer assisted reporting lose its original meaning. Machado (2003) considers
that the real transformations in journalism with the telecommunication networks are of another magnitude, involving changes in all phases of journalistic production, while precision journalism or computer-assisted reporting characterizes technology as an auxiliary tool in journalistic work. Meyer (1999) admits the obsolescence of the term “computer-assisted reporting”, as well as the expressions “precision journalism” or even “scientific journalism”, to identify what he considers fundamental: to move from a theoretical scheme of computer-assisted reporting to a theoretical scheme in which social sciences define the new contribution to journalism.

2.3 The application of qualitative research methods to journalism

Experiments in journalism based on the notion of objectivity and on the quantitative analysis of data have led social researchers using a qualitative approach to consider necessary a review of traditional ways of journalistic reporting and of the contributions that the quantitative social sciences might bring to the activity. Their point of view is that qualitative methods and techniques such as ethnography, participative observation and in-depth interviewing could complement journalistic data verification, since traditional reporting “cannot suffice for the full range of skills necessary for complete news coverage in today’s interactive and global media environment” (IORIO, 2004: xiv-xv). Some of these experiments are presented below.

2.3.1 Ethnography

Ethnography is a research method in anthropology characterized by an “immersion” of the researcher in the environment under study, by means of an “artistic, microscopic and detailed” practice (PEIRANO, 1995:57) in which the anthropologist dedicates himself to studying his subject during a long period of contact. He can use, whether by observation, direct contact or in-depth interviews, a field notebook, and the possibility of living and participation in the activities of the investigated group. As a consequence, there is an inevitable inter-subjective change between the researcher and his subject. The defenders of this methodology understand that the in-depth research of a specific case reveals aspects not revealed by other methodologies.
If there are difficulties in the appropriation of the anthropological method by other areas of knowledge – as by journalism studies (LAGO, 2005) – without due reflection on the debates regarding its use, the intention of transforming a method of scientific research into a method of journalistic data verification produces an initial impression of impossibility. Even so, a group of American researchers gathered together a set of studies in the book *Qualitative Research in Journalism* (2004) to discuss theoretically and methodologically the advantages of the utilization of methods of qualitative research in journalistic reporting, besides presenting examples of its application in newspapers in that country.

Cramer and McDevitt (2004), for example, propose an application of ethnographic procedures to journalistic data verification, for the purpose of creating a new modality of reporting that they call "ethnographic reporting" and "ethnographic journalism". In their article, the authors do not develop the concept theoretically, trying instead to identify which journalistic subjects can be better revealed and understood with the help of ethnographic tools. At the same time, they realize that in-depth reporting and literary journalism already contained traces of an ethnographic method: a) writing the story from the viewpoint of one or various subjects of the journalistic event, and not from the perspective of the journalist or of his organization; b) putting together details of the lives of the subjects; c) reproducing real dialogues; d) introducing the subjects' inner monologues, as their thoughts, dreams, doubts, or worries; e) describing physical details of places or people and temporarily submerge into the subjects' lives (CRAMER E MCDEVITT, 2004:136).

**2•3•2 Triangulation**

The preoccupation of social scientists in increasing the degree of validation of their studies motivated them to combine research methods, even if they were from a qualitative or quantitative basis. This combination can occur simultaneously in research, trying to confront data items originating from different sources so that they complement each other and permit more precise conclusions. The combination of methods can occur successively, with a second method indicating questions to be treated by the following method or even to redirect the research. The methods have an integrated character, based on the idea that the limits of one can be counterbalanced by the extent of another, according to Goldenberg (1997:63).
Christians (2004:48-9) rejects the idea that this method generates eclecticism in research. Quite the contrary, it avoids bias as well as superficiality in the results. The author points out different ways of triangulation: a)- of methods: combining documentary analysis with non-structured interviewing and free observation; b)- of approaches: treating a social problem from a historical, synchronous (diverse influences acting simultaneously), and theoretical (conceptual reformulation) perspective; c)- of theoretical frames: utilizing different theoretical perspectives to understand the same subject.

Following the author’s line of argumentation, it is thought that triangulation, as a methodological principle, can be beneficial for journalism, when applied, for instance, through the combination of information sources in a report – a normative resource considered essential for its own activity to guarantee the plurality of actors, interests, and perspectives in the description and interpretation of a fact. One can also build different approaches to an event: the immersion of the journalist into an environment of an event that is to be reported, in-depth interviews based on oral history, and the utilization of statistical analysis of complex social phenomena (official data about the socio-economic profile of certain populations as a base). An illustrative example of this combination of approaches is the use that the Folha de São Paulo (main newspaper in Brazilian mainstream media) makes of the Datafolha Research Institute to obtain data about elections and complex social situations. For this, the journalistic activity depends on the composition of a multi-disciplinary team for research and data interpretation.

3 CHALLENGES IN THE INTERCHANGE BETWEEN JOURNALISM AND SCIENCE

3.1 Different methods

In the first place, there is a difference in work method between journalism and science. In the usually accepted sense, method signifies a regulated and rational procedure to reach specific results, resolve certain problems, etc. In the sciences in general (not only in social sciences), the term is at the root of scientific activity, and we can say that there is no science without a defined and rigorously applied method. The methods
constitute “the basic instruments that bring order, from the beginning, to thought in systems, and dictate, in an orderly way, how the scientist proceeds throughout his journey to reach a pre-established objective”, according to Trujillo Ferrari (1974:24).

In journalism we can refer to the existence of a method as a set of guidelines for data verification, based on values and conceptions regarding the role and the forms of journalistic action in order to achieve a certain goal (to produce news) about facts and opinions that fit into a certain parameter of relevance. Therefore, a data verification method means a set of practices (skills and techniques) used by journalists, such as the observation of ongoing events, interviews with information sources, reading of documents and other data of a technical nature, etc.

However, there are three fundamental differences between the scientific method and the journalistic method that require a more accurate analysis. The first difference is in the intention of each activity: science utilizes its methods in order to obtain a certain knowledge that has universal validity, whereas journalism essentially tries to characterize singular events (Genro Filho, 1987). The second difference can be found in the rigor of the method of application: in science, this rigor is essential in the analysis and validation of results that must be informed as a requirement for the trustworthiness of the information provided, while in journalism the methods are very flexible and do not require exposure to their interlocutors.

Thirdly, scientific discourse is also rigid with regard to style, while in journalism style is very diverse due to, above all, the audience to which an organization devotes itself. The journalistic text is not synthetic in the sense of a ‘synthesis’ that is executed by the sciences, but it is varied. Although journalism is an interpretative process, having the notions of truth and relevance as parameters of quality, we cannot consider this procedure similar to the scientific one. The journalistic product admits the plurality of points of view and even of conflicting information, as long as it is contextualized appropriately in a coherent speech. Its text is a combination of different points of observation, of description, and of the interviewees’ viewpoints.

The effort to clarify such differences, including testing them in a systematic way, can contribute to a better understanding of journalism as a social practice and of its working methods as well as to qualifying the incorporation of scientific methods in reports.
3.2 The crisis in the concept of objectivity

In common, journalism and science have experienced a crisis in the concept of objectivity. If, in the XIX century, science inspired journalism to adopt its method of data verification, together they face all the criticism that questions the basis of the conception of science as being based on the notion of truth.

The basic premise of this criticism in general is that facts are not built up by man's action alone. Instead of this, his awareness is formed by social, cultural and historical relations that he experiences. Every possibility of knowledge, therefore, is conditioned by these factors.

Although science sometimes experiences discredit and skepticism - particularly human sciences - it devotes itself to the development of alternative methods and techniques which are submitted to debate by the research community, when the latter discusses their advances or retrogressions with regard to traditional methods.

In journalism, however, there is strong criticism denouncing the limitations of the concept, but nothing significant regarding an organized, systematized, well-founded and tested program with respect to alternative methods that surpass the technical and normative structure based on objectivity. The challenge, in this case, is in saying what should be accepted in place of objectivity, with a basis in the ethical obligations and technical results which are expected to be achieved.

3.3 Distancing

The possibility of immersion of the journalist in an environment of his journalistic work, in the depth that is required by an ethnographic study, makes us think about whether or not the proposal deals with the preservation (and transposition) of boundaries between journalists and their news sources in an efficient way. Preliminarily, this relation seems to work for a model of civic journalism, but it needs to be tested in other models of journalism.

To propose an ethnographic journalism implies having the journalist review his notion of objectivity and distancing with regard to his subject. The researcher's interpretative character is an issue that – remember – anthropology has been facing in a serious way, in the opinion of Clifford Geertz (PEIRANO, 1995:26). According to Cramer and McDevitt, the journalistic report performed as social immersion seems to violate the separation between the journalist and the actors in the report and they...
emphasize that “the task of grafting ethnography onto journalism requires us to revisit the author-subject relationship of reporting” (2004:127).

This methodological application can force journalism to introduce situations such as: discussing with the individuals of the report which types of information could be revealed in a report (CRAMER E MCDEVITT, 2004:134); and letting the organization of the report be defined in the context and from the perspective of the participants of the report (IORIO, 2004:14).

3.4 The observer's view in the definition of his subjects

The technique of observation as a practice of qualitative research demands “an investment by the observer in the analysis of his own way of viewing things” (CARDOSO, 1986:103). To observe, explains the author, is an encounter with strangers, a relation of diversity, a contact between different symbolic systems.

Those are concerns that can evoke new procedures from journalists. In this case, beyond observation with its techniques of field data recording, the challenge to be faced by the journalist when adopting qualitative methods is in turning inside and investigating how he builds his way of viewing things, how he pre-defines and names journalistic events. Not only is the knowledge about techniques required but also the reflection on their presumptions and conditions of use.

Here, we can consider that science can offer journalism new ways of building its subject. An example of this is noted when statistical analysis and opinion polls become news, and also when the journalist “dives” into a reality that is rich in significant elements and unknown to the public. Cramer and McDevitt (2004:135) consider that ethnographic journalism has tools to identify “hidden meanings” in events and situations that are not identified by the traditional eye of the journalist.

It is known that in traditional journalism, reporters usually elaborate on a basic idea of the report in their minds even before the majority of the interviews are performed (CRAMER AND MCDEVITT, 2004:136). A possibility that qualitative research offers to journalism, even that produced with industrial velocity, is the use of ethnography as a way of understanding new realities, new meanings and of identifying new social actors.

This task is particularly useful in the process of preparation of agendas for a journalistic organization and it helps in a preliminary mapping out of themes, facts and situations avoiding an excessively routine type of
journalistic coverage involving predictable events and sources. Besides, it can prevent prejudice and presumptions, coming from the ones who organize the agenda, from being transferred to the reporter: a work of careful observation prior to carrying out the agenda will produce new data, perspectives, understandings about the event that will challenge (and even put down) pre-conceptions. Sharon Iorio (2004:14) believes that qualitative methods can be used by news organizations as a tool of “pre-testing” to identify networks of credible sources or the roots of an issue.

3.5 Cleaarness in the contract between producers and receivers that regulates journalism

It is necessary to answer a basic question: what is the greatest asset a journalistic institution should offer to society? What is the contract that guides such relation? In journalism that is based on the notion of objectivity, there is a commitment to the fact, with the truth expected in news.

When we lose track of the facts and of the technical procedures for their observation, we also lose the link that supports the contract of journalism as a social practice: that the news will maintain the audience in contact with the real world. If this possibility is disregarded, what would be the role and the place of journalism in contemporary society?

The theoretical challenge brought up here is, therefore, to start from the existence – and from recognition – of this premise originating from journalism, which establishes a contract to be put into practice with the audience. This challenge implies the recognition of all limitations, for instance, that constructionist theories have pointed out in the mediation paradigm. However, it also implies submitting the constructionist contributions to a rigorous test to analyze to what extent their refined theoretical formulation is capable of dealing with the challenges that research in journalism requires: not only a better comprehension of journalism itself, but also, above all, to improve and qualify the professional practices and the social function that the activity is expected to accomplish in democratic societies.
A TEMPORARY BALANCE OF CONTRIBUTIONS AND DILEMMAS

Despite its valuable contributions, the book “Qualitative Research in Journalism” presents two difficulties. First, the profile of a large part of researchers matches or is taken up with “civic journalism”, whose model of facts motivates an approach between journalists and the public, favoring communitarian experiences of journalism. With a higher level of relationship with his public, the journalist can look for techniques that are close to an ‘immersion’, developing in-depth interviews and participative observation. However, the book does not point out ways to go beyond the model of civic journalism, which impedes the understanding of how such techniques optimize or even transform other models of journalism.

A second aspect is the absence of an epistemological discussion about the debates that the qualitative methodology faces in its own disciplinary area, an absence that is expressed, for instance, when the book’s editor states that “to use qualitative methods in journalism is not difficult” (IORIO, 2004:14). However, the book does not face the challenge of theoretically supporting a transformation of a scientific model into a model of journalistic activity based on a social practice with other objectives, expectations, actors’ profiles, and the environment in which it is developed.

At the same time, it is observed that there is a healthy courage in some proposals that points to a kind of “eureka” thinking that confronts fragile points of traditional journalism, such as the precariousness of the reporting process in face of a constantly increasing availability of content, a consequence of a convergence between technical and marketing factors. Sharon Iorio (2004:14) alerts us to the necessity of “choosing the right story” for the application of a qualitative methodology, because not all events are appropriate for this purpose.

The perspective also stimulates a greater connection between journalist and ‘field’, motivating him and enabling him to capture micro-realities. The use of new technological resources of an interactive nature on the Internet (chats, e-mails, cooperative writing sites, etc) can maintain the link with small groups for a longer time, even after the journalist has finished his immersion in the reporting environment.

At the same time, those authors cannot discuss journalism from the point of view of its internal logic. For this purpose, it is necessary to consider a minimum program of questions that need to be contemplated.
or taken into consideration in any reflection upon journalism and specifically regarding the application of scientific methods to reports. Although each aspect of journalist work can be approached separately, we cannot lose sight of the necessary relationships existing between them, at the risk of overlooking the journalistic logic that unites them and that should regulate their understanding.

Those aspects are:

(a) concepts and norms related to the notion of journalism and to ethical-political obligations that the activity assumes with its audience and with society: journalism has a mission to offer true reports through procedures for objective investigation, with the purpose of permitting the audience to have contact with real facts that make them interesting, important and new. No matter how simple the concepts are, they are legitimized by pragmatic ties between professionals, social institutions and citizens that recognize such aspects and base their relationship with the press on them. Any criticism of such concepts and norms requires the addition of new concepts that perform their role or that explain the terms of relationship between those actors in the definition of journalism;

(b) concepts and norms related to a professional making that are a direct consequence of the prior aspect: the whole set of ethical and technical procedures of reporting is based on conceptual, normative elements previously pointed out. Since many of these are objects of criticism and refutation as an explicative category in journalism, the ethical and technical procedures inspired by them no longer make sense and consequently there is a need for offering new procedures based on new concepts and norms with the purpose of updating professional practice with its ‘new’ theoretical milestone.

(c) the empirical aspects that condition the application of the aspects described in (a) as well as in (b): every journalistic activity takes place under specific empirical conditions, that also determine the level of applicability of professional concepts and norms as well as the techniques that result from them. Every investigation must, however, before proving the concept, verify whether the conditions are appropriate for consideration of the concept1.

(d) not to consider the time factor as a structuring logic of journalistic activity impedes the comprehension of the internal tensions that organize, give meaning to the practices, and generate social value in its product in the eyes of its public (FRANCISCATO, 2005). The ephemeral character of journalistic content (its link with the present time in movement and
the imminent risk of becoming outdated) makes the professional adopt a work method based on simplified techniques for data collection and construction of reports, when compared with scientific rigor. To be placed on an intermediate level of elaboration between the sciences and common sense allows journalism, in counterpart, to dialogue with these two forms of knowledge, to be fed from both sources through their interpretative frameworks, methods and practices, forms and contents, without, however, losing its specialty.

Without focusing on the aspects of journalism that are specific, unique and original (MEDITSCH, 2002:11), pointed out summarily in the four aspects mentioned above, the discussion about the appropriateness of new methodologies in journalistic reports shows the lack of a greater level of understanding of its main object (“journalism”), its characteristics and social role. If, in the relationship between science and journalism, this issue is not appropriately understood, the mistake of a non-critical transposition of methodologies will be repeated.

NOTES

1 The set of such knowledge will receive the definition of cognitive techniques of the process, that is, the set of knowledge related to the must make, how to make, and to the circumstances of making that characterize journalistic work, in performing interpretative work (GUERRA, 2003).

BIBLIOGRAPHY


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