

## ON THE VALIDITY CRITERIA OF FORENSIC EXPERTISE

Conf. univ. dr. Sorin Alămoreanu, Universitatea Babeș Bolyai, Cluj-Napoca, Prof. univ. dr. Augustin Lazăr, Universitatea „1 Decembrie 1918” Alba Iulia, Adrian Frățilă, INEC Bucuresti

*Key words: forensic expertises, scientific opinion, Daubert, Frye,*

*The authors discuss the current situation of Romanian forensic expertises ,through the needed scientific approach. Some philosophical opinions are used as starting points in presenting some judicial US standards ( Frye, Daubert) that have been for some time considered as reference guides in evaluating the scientific methods of ascertain forensic expertise. References are also made to the Polish Codes of Criminal procedures.*

Solving judicial cases, magistrates have to deal sooner or later with the need of a scientific answer that will exceed their general knowledge.

To ask from a magistrate other than having various and thorough use of judicial and procedural knowledge, it would be at least awkward. We will not try to discuss here the Romanian Law provisions that are generally vague in the matter of forensic examination. The authors have assumed for this paper to draw attention on the need for generalized standards that can serve as appreciation grounds, if not upon the scientific character of a certain forensic report, at least on the methodological criteria used to evaluate the validity of the examining procedures and subsequently the conclusions based upon them.<sup>1</sup>

### Conceptual premises

Starting with the definitions of the expertise<sup>2</sup> and of the expert<sup>3</sup> in the Romanian literature, but also from the legal text on the matter, one can appreciate that forensic expertise will be ordered upon when the matter subjected to debate has a scientific character that stretches beyond common knowledge of the judicial body<sup>4</sup>. It appears as obvious that expert findings, as well as the conclusion must be congruent to the expected scientific spirit. Arguably, a scientific content is expected in all fields of the expertise. In the present paper we will refer mainly to forensic expertise in the field of Criminalistic examination.

The main topic remains the criteria that one would use in order to assess the capacity of a certain forensic examination report ( expertise) to compel with the utmost scientific spirit in answering the questions ordered as such by the Court. One must not forget that expert findings( conclusions) are looked upon as expressing the result of the examination, experiences, measurements, etc. of the expert, but also “ **the expert’s scientific opinion**”. The magistrate, or any other judicial body does not have

---

<sup>1</sup> On the concern for uniform standards in European judicial space see also Aug. Lazăr, M. Foițoș, Al. Georgescu, *O privire în viitor: noile tendințe ale investigației criminalistice la nivel european*, Revista de criminologie, criminalistică și penologie nr. 1/2009

<sup>2</sup> A se vedea în acest sens: **Colectiv** *Dictionar de Criminalistică* Ed. Științifică și Enciclopedică București 1974, pag. 67; **Stancu E.***Criminalistica* , Ed. Actami , București,1997, pag. 54, **INEC**, *Reglementarea activității de expertiza criminalistică și organizarea ei în România*,Ed. Solness Tmișoara ,2000, pag. 6.

<sup>3</sup> **INEC**, *op.cit.* pag 17

<sup>4</sup> Romanian Criminal Procedure Code art. 116.

enough scientific background and can not master beyond general information levels the intricate and complex field of forensic chemistry, anthropology, biology, etc.

It was already asked: How would “scientifically lay people” cope with the jungle like data when called upon to rule on cases on the base of a highly scientific result?<sup>5</sup> The question opens ways of various positions in solving it.

The German Criminal Law Procedure Codex allows that by exception the Court can rule upon a certain without an expert opinion.<sup>6</sup>

Certain opinion favor the idea that at least in certain areas of forensic expertise problems are solved rather empirically<sup>7</sup>, thus such expert opinions would be set outside scientific area and consequently can be regarded as pseudo-scientific.

Our opinion adheres to the view that scientific status of an activity, theory, etc. can be appreciated in respect with its “capacity to be falsified (denied) rejected or proven”<sup>8</sup> and its method’s correspondence with the juridical and scientific rigors of procedure. According to Popper science is an evolution process of knowledge achieved through successive denial of previous theories. They are replaced by new theories, “less mistaken theories,” with a better explanatory power. Each step of progress was made on the base of “falsifying”<sup>9</sup> the previous ones, as the new theory could offer a better image on facts and data that were previously uncertain.

Generally, courts appreciate over various conclusions on mainly personal concepts, sometimes even subjective, on the resonance (or dissonance) with the rest of the evidence body. These decisions are not that much based on the scientific spirit, as much as on the need to compel with the procedural interest of promoting scientific evidence.

Romanian literature does not indicate precise criteria on appreciating the scientific or pseudo-scientific character of an expertise. Still. Some papers propose generally accepted criteria as “scientific,” suggestions of methods and methodological approaches, even some working standards.<sup>10</sup> A recent book<sup>11</sup> takes into analysis some of the problems that are needed to be reflected upon, proposing even a variety of concepts to operate with towards a better handling of the problems in handwriting examination. But that is all...

Recently, one voice repeatedly uttered the idea that the freedom to nominate private experts is the source to the correctness of the forensic expertise.

It has also been said by the same source that “the existence of official institutes and official experts in Romania generates lack of correctness and a state monopoly on forensic expertise”.<sup>12</sup>

---

<sup>5</sup> Hecker M. *Hanwriting and Science in Contemporary proof of a Document*, UWB, Wroclaw 2000, pag. 113,114

<sup>6</sup> Keller R. *Applying Scientific Methods Against Rationalism Admitting of Evidences in Penal Process?* Archiv fur Strafrecht Vol.146. 1999 pag. 255-271

<sup>7</sup> Huber R. *Galileo’s revenge, Junk Science in The Court Room*, Basic Books New York 1991

<sup>8</sup> Popper K. *Conjectures and Refutations: The Growth of Scientific Knowledge*. Routledge, London, 1963. p. 67.

<sup>9</sup> According to Popper methodological change in knowledge means successive transformation of groups of concepts forming a certain theory. Scientist are compelled at a certain point to accept or reject certain ideas. Through *ad hoc* hypothesis they will have to decide on previous concepts in order to keep or deny them accordingly to the new levels of science.

<sup>10</sup> ISO CEI 17025 standards is in use in NIFE and Romanian Police laboratories.

<sup>11</sup> Frățilă A. *Etiologia bolilor expertizei grafice* Ed. TIBO 2008.

<sup>12</sup> Timpolis 20 - 23 noiembrie 2008, citându-l pe C. Grigoras- la acea dată director adjunct al INEC. <http://www.sojust.ro/> as well as some other interviews of the same expert in other news journals during 2005-2008.

If one looks at this matter from the strictly declarative point of view it might seem at a certain level justified. Still, the concept is wrong in our opinion because it is automatically placing the sign of equality between the nomination as official expert and lacking of impartiality (understood as “serving only state interests” as employer of the official experts).

**What about then of professional correctness and the respect for scientific criteria?** The supposition that some official experts will be servile is only a mere supposition. Until proven otherwise the lack of a dependence from the client provided by the state funded activity leaves sufficient ground to impartiality.

**On the other hand, isn't the *private expert-client* relation mercantile enough to rise suspicions likewise?**

Foreign literature admits and accepts the idea that “no-one expects that a consultant( expert.) to be totally impartial”<sup>13</sup> but ,as a principle, it is clear that expert opinions need to abide rules of professional accuracy, indifferent to what litigating part has nominated them<sup>14</sup>. But What is to be done when the lack of criteria upon expertise validity is doubled by the scientific incapacity of one entitled to evaluate the results and place the at their due place in the *judicial jig-saw* meets the dishonest ( private or official) expert ?

**There's a logical question : According to the required expertise, what would be the criteria based on which it is possible to make appreciations on the cognitive path that has led to the results?**

#### **Standards and principles**

In the USA the *Frye Standard* (a.k.a. “ *standard of general acceptance*”) is destined to determine the admissibility of scientific evidences in Federal Courts. It allows to appreciate a scientific opinion of the experts based on scientific criteria only if the techniques or involved methods are generally accepted as adequate by the scientific community<sup>15</sup>.

The standard requires that the judge must make sure that expert opinion is thoroughly motivate from the scientific point of view. It also implies that the party promoting a certain questioned problem must provide enough experts capable to sustain over the scientific validity of the discussed opinion. With this standard, new techniques have forced courts to study literature and judicial precedents in order to determine the solidity of certain problems and their general acceptance in the scientific community.

As an answer to Frye Standard, other US case generated the Daubert Standard ( Daubert vs. Merrel Dow Pharmaceuticals.) It helped create criteria of a juridical-epistemological nature allowing the court to appreciate thoroughly the scientific or non-scientific character of an expert explanation. The Daubert Standard indicates four criteria that have to be taken into consideration :

1. **The theory or technique involved must be controllable**, quoting Poppers phrase: “*The criterion of the scientific status of a theory is its falsifiability, or refutability, or testability*”.<sup>16</sup>

2. **There must be a generally accepted rate of error of the method.**

3. **The theory must have been previously published-** ( submitted to “pros &cons” debate ).

4. **A certain degree of consensus of the scientific community** must exist on the theory.

A brief evaluation of the upper criteria may well be read as the following rules of conduct:

---

<sup>13</sup> **Taruffo P.** *La prova scientifica nella recente esperienza statunitense* Rivista Trimestriale di Diritto e Procedura Civile, Milano 1996.

<sup>14</sup> Federal regulations from USA provide the provision that the court *proprio motu* or as required by the litigants has to explain why a certain expert is not accepted and motion the parts as to nominate another. The court may nominate any expert as elected by the parts or nominate one *ex officio*.

<sup>15</sup> Frye vs. SUA ( D.C.Cir 1923).

<sup>16</sup> Popper K. op.cit. 67.

- The Court is the only one to establish if expert findings have a scientific character.
- The Judge is to make sure that the data offered by the expert are relevant for the case and well founded.
- The conclusions will be appreciated as scientific if the litigating party can prove its scientifically correct character.

**The whole burden of appreciation is shifted on the skill of the judicial body, who's thoroughness must find the right way in the intricate paths of science.**

**How can it be done?**

Romanian Law does not specify on the specialized background,, asking only for “High level education” proven with a Diploma.<sup>17</sup> We find this legal text to be un-sufficient on grounds of the subsequent implication “ex officio”: all persons acting as experts are mastering sufficient knowledge and have availability of the needed cognitive and technical support. **We wonder: is this true beyond any doubt?**

Polish regulations provide different ways to evaluate expert qualifications accordingly to the institution of origin.<sup>18</sup> General rules are provided by the Order nr. 18/1987 of the Minister of Justice indicating that experts must be of minimum 25 years of age and have sufficient specialized technical and practical knowledge in a domain, that can be proved with appropriated documents : university diploma, certificates of training, certificates of practical training in certain fields of activity.<sup>19</sup>

According to Polish Law the ordering of an expertise is preceded by a special preparative step during which the expert is facing the judicial body and consulted upon the usefulness of the expertise, its objectives, as well as the available methods and technical means.

The Romanian Criminal Procedure Law provides in art. 120 a very general indication that the judicial organ in the investigative phase may invite the official expert to his office to discuss the future expertise's utility and feasibility. But since the expertise is done only in official institutes generally there is no indication of the expert to be appointed. So whom to call? Since the expert is only to be nominated by the chief of the Forensic Lab after it has been appointed to do the examination.

We find the Romanian regulations on expertise and expert rights & obligation missing. It has been repeatedly uttered the fact that “ the only solution “ to a better judicial system is in liberating the access of private experts to the expertise market, we do not challenge the idea as a whole, but we would emphasize on the lack of similar standard requirements to official and private experts as well. How can one ask for similar rights without similar obligation? This would trespass a basic principle of Right: the equality of weapons during trial. If one is implementing ISO CEI Standards in official labs, let them be asked from private experts as well or at least let them prove to have been making examination in accredited labs also.

Since there is an ENFSI code of conduct implemented in both NIFE and IC of Romanian<sup>20</sup> Police, but no Ethical Code of conduct for the private ( authorized) experts how can one measure or hold responsible the private expert for their miss findings( misconduct) ?

Our opinion is to regulate this situation by issuing a Code of Conduct and Standards for Forensic Experts and Expertises.

---

<sup>17</sup> M.J Order 441/C/998 art. 27 al.1 lit. B for the NIFE Experts and OG 75/2000 art.4 lit. C for authorised ( private) Experts.  
<sup>18</sup> **Ciesla R.** Technical Examination of Documents within the Scope of Polish Evidence Law Ed. Universitet Wroclawski 2006, pag. 77  
<sup>19</sup> Idem.  
<sup>20</sup> NIFE –National Institute of Forensic Expertise –is part of the Ministry of Justice and has been since 2000 a member of ENFSI.  
 Institute of Criminalistic of The Romanian Police General Inspectorate is a full member of the ENFSI since may 2005 . Both have implemented and continued developing ISO CE 7025 standards of laboratory work procedures.

## **BIBLIOGRAPHY**

**Colectiv** *Dictionar de Criminalistică* Ed. Științifică și Enciclopedică București 1974

**Ciesla R.** *Technical Examination of Documents within the Scope of Polish Evidence Law* Ed. Universitet Wroclawski 2006

**Frățilă A.** *Etiologia bolilor expertizei grafice* Ed. TIBO 2008

**Hecker M.** *Hanwriting and Science in Contemporary proof of a Document* , UWB ,Wroclaw 2000

**Huber R.** *Galileo's revenge, Junk Science in The Court Room*, Basic Books New York 1991

**Keller R.** *Applying Scientific Methods Against Rationalism Admitting of Evidences in Penal Process?*Archiv fur Strafrecht Vol.146. 1999

**INEC**, *Reglementarea activității de expertiza criminalistică și organizarea ei în România*,Ed. Solness Tmișoara ,2000

**Popper K.** *Conjectures and Refutations: The Growth of Scientific Knowledge*. Routledge, London, 1963

**Taruffo P.** *La prova scientifica nella recente esperienza statunitense* Rivista Trimestriale di Diritto e Procedura Civile, Milano 1996