

# THE MEANING OF THE REQUIREMENT FOR A STRUCTURED EXPERT'S PROCEDURE IN THE NEW REGULATION OF EXPERT PERFORMANCE

JIŘÍ ZÁVORA

**Abstract:** An Explanation of the Structured Expert Procedure in the New Regulation of Expert Law in the Czech Republic

The aim of this theoretical study is a hermeneutical interpretation of the meaning of the requirement for a structured expert procedure, especially in relation to the reviewability of expert evidence. The study also aims to explain the reviewability of expert evidence in relation to the conceptual changes in the new regulation of expert activities in the Czech Republic.

**Keywords:** reviewability; expert procedure; evaluation of expert evidence

**DOI:** 10.14712/23366478.2023.4

## 1. PURPOSE AND OBJECTIVE OF THE STUDY

On 1 January 2021, the new Act No. 254/2019 Coll., concerning experts, expert offices and expert institutes came into force (hereinafter referred to as „*experts law*“ “LEX”). The expert activities, as defined in the LEX, are regulated significantly differently from the original regulation included in Act No. 36/1967 Coll., on experts and interpreters (hereinafter also referred to as "LEXI").

Of the wide range of changes, I will primarily focus on the *expert's procedure* under Section 52 of the Implementing Decree No. 503/2020 Coll., on the performance of expert activities (hereinafter also referred to as the “decree”).

While the previous regulation of expert activities did not deal with the procedure of the expert at all, the new regulation obliges experts to proceed in a structured manner following individual clearly defined steps. These steps must be described and justified by the expert in the expert report (§ 41 and § 42 of the decree).

The explicit regulation of the structure of the expert's procedure is a key change in the regulation of the performance of the expert, because it positively changes the conditions for the reviewability of expert opinion, as I will try to explain in this article.

The requirement of the new legislation for structuring the expert's procedure is based on a study,<sup>1</sup> in which I attempted to find and clarify the reasons for the difficulty in reviewing expert opinion under previous regulation of expert activity. I proposed a structural solution of

---

<sup>1</sup> ZÁVORA, J. Causes of difficult reviewability of expert opinions. Acta Iuridica Olomucensia. 2017, vol. 12, no. 1, p. 120-149. Study initiated by the Ministry of Justice, No. 8/2011-OD-ZN/20 of 11 August 2011.

reviewability that is implemented in the EA, drawing on both the existing Czech practice as well as on significant foreign experience. In particular, the application of the so-called Daubert standard<sup>2</sup> in the USA has shown how ineffective it is to try to improve the performance of experts by testing the scientificity of the methods used. As reasonable as such a solution seemed, it was a substantive concept that resulted in considerable confusion in the competence of the judge.<sup>3</sup>

Publications on the new regulation of expert activities will be application-oriented<sup>4</sup> or in the form of summary commentaries, which will naturally do not deal with a deeper interpretation of some concepts.<sup>5</sup> The aim of this theoretical study is a logical and hermeneutical interpretation of the meaning of structured expert witness procedure in relation to the basic concepts of the new expert witness activity regulation.

## 2. CONDITIONS OF REVIEWABILITY IN RELATION TO THE STRUCTURED PROCEDURE OF THE EXPERT

In the previous regulation of expert activities, which did not explicitly regulate the procedure of the expert, reviewability was the feature of the expert opinion.<sup>6</sup> The interpretation of this feature was, to say the least, unclear and unstated.<sup>7</sup> The very existence of a requirement for structured procedure of the expert (cf. Art. 28 para. 9 LE; Art. 52 od the decree) causes a change in the *conditions of reviewability* because it imposes an obligation on the expert to record in the expert's opinion on how he fulfilled each of the defined steps of the procedure (cf. § 52 of the decree). It is therefore a change towards structured justification of the solution of the expert problem.

The expert's procedure is to be understood as a sequence of steps that the expert actually, not theoretically, performs, goes through when solving an expert question.<sup>8</sup> The expert's procedure as a process of solving an expert question is analogous to the scientific process of solving a research problem because in both cases the activity is analytical in nature. The process of the expert or the process of the scientist is a process of sequential clarification of an expert problem through a sophisticated (methodical) "*transition from facts and data to knowledge*"<sup>9</sup>. Working with data is a general characteristic of this procedure, the terminology (data sources, data collection, data processing, etc.) is adapted to this in the decree. (cf. §§ 53 to 58 of the decree).

By modifying the mandatory procedure of the expert, the new regulation allows to examine what the expert actually does when solving an expert problem or how he or she has worked with

---

<sup>2</sup> The Daubert standard consists of five criteria for the admissibility of expert evidence before a jury. The standard was created based on a trio of U.S. court decisions, *Daubert vs. Merrell Dow Pharmaceuticals, Inc.* 509 U.S. 579, 590/1993; *General Electric v Joiner* 522 U.S. 136 1997; *Kumho Tire Co. v. Carmichael* 526 U.S. 137/1999. This standard is still not adopted in all U.S. states.

<sup>3</sup> Effective structure-based reviewability solution vs. flawed content-based solution (on substantive component).

<sup>4</sup> For the first expert publications on the application see RICHTER, M. - PŮRY, F. Vliv nového znaleckého práva na zjišťování škody v trestním řízení. *Bulletin advokacie*. 2020, vol. 50, no. 11, p. 20-25; RICHTER, M. - VÍTKOVÁ, K. Vybrané problémy oceňování v reorganizaci v kontextu nového zákona o znalcích. *Bulletin advokacie*. 2020, vol. 50, no. 12, p. 36-40.

<sup>5</sup> Cf. DÖRFL, L. - LEHKÁ, M. - VISINGER, R. - KRYSL, A. *Zákon o znalcích*: commentary. Prague: C. H. Beck, 2021; KRÍSTEK, L. - BÜRGER, P. - VUČKA, J. *Zákon o znalcích, znaleckých kancelářích a znaleckých ústavech*. Prague: Leges, 2021.

<sup>6</sup> I have given a detailed analysis in my study: ZÁVORA, c. d.

<sup>7</sup> Ibid, p. 124-127.

<sup>8</sup> Ibid, p. 147-149.

<sup>9</sup> Very succinctly: SMĚKAL, V. *Malý úvod do vědecké práce* [online manuscript]. Brno: FSS MU, [undated], p. 3 [cited 2021-09-01]. Available from:

[https://is.muni.cz/el/1423/jaro2004/PSY704/um/Maly\\_uvod\\_do\\_vedecke\\_prace.pdf](https://is.muni.cz/el/1423/jaro2004/PSY704/um/Maly_uvod_do_vedecke_prace.pdf)

the data he or she has examined. The obligation to record all steps of the procedure in the expert opinion, the expert opinion from a structural-content (rather than a procedural-legal) point of view becomes a *report on the expert's progress*. More precisely, the expert opinion is thus a comprehensive report on how the expert has addressed (the procedure) and resolved (the conclusion) a given expert question.

Within the framework of the steps of his actually implemented procedure, the expert takes in hand specific tools, applies specific methods, looks into specific sources of information, visits specific places, etc. In the expert opinion, the expert then records the course of these actual operations in their logical sequence. (cf. §§ 53 to 58 of the Decree). Correspondence of the steps of the expert's procedure with the requirements of the expert opinion creates a coherent structural and logical whole and therefore good conditions for reviewability.

It is clear that the codified procedure of the expert (as enumerated in Section 52 of the LEx) is organized from steps, which cannot be and are not theoretically postulated (invented) and that they must be applicable to all expert disciplines. The procedure of the expert, as regulated by the LEx, is a sequence of steps based on the spatio-temporal organisation of any analytical activity of a human being and are therefore independent of the expert and the expert discipline. These are steps that can, for example, be understood as notoriety in the field of scientific publications.<sup>10</sup> An expert from any discipline (including craft disciplines) simply must go through these steps of the process, even though these steps may not be conscious. Otherwise, such a procedure would either be incomplete, or would even cease to have the nature and characteristics of an analytical activity.

It is also clear from common experience that in order for an expert to be able to answer a given technical question (**the objective**), he must deal with something specific, "have something in hand" (**the data**), and that "something" must be taken somewhere in some concrete way (**the source of the data**). The data is being prepared for **analysis** in a certain way (**data processing**). **The results** of the data analysis must then be reported into such a context (**interpretation of the results**),<sup>11</sup> that he can formulate a coherent answer to the expert question (**conclusion of the expert opinion**).<sup>12</sup>

It is obvious that these steps clearly differ from each other, have a certain number of and a legal sequence (source, data collection/creation, processing, analysis, results and their interpretation, conclusion).

The structured procedure of the expert, as regulated by the LEx, therefore has the characteristics that create conditions for the reviewability of the expert's performance. These are: *independence from to the expert*<sup>13</sup> *and to the discipline, the inevitability of the individual steps of the procedure resulting from the spatio-temporal order of human analytical activity, the closed number and lawful sequence of the individual steps of the procedure and the universality*

---

<sup>10</sup> This is not to say that these steps must be described *in extenso* in the expert report, as some types of scientific publications. That would not be practical.

<sup>11</sup> When interpreting, the expert always puts the results of the analyses into context with regard to the technical question. In doing so, he or she takes into account other contexts and information (e.g. from the literature) that may not enter into the analysis, but may have an influence on the accuracy of the expert's conclusion (cf. § 40, paragraph 1c of the Civil Code).

<sup>12</sup> See animation of the expert's procedure: IFSPCZ. Expert witness procedure from 1 January 2021. In: YouTube [online]. 2021. [cited 2021-09-01]. Available on: <https://www.youtube.com/watch?v=QwGfsOX12OI>

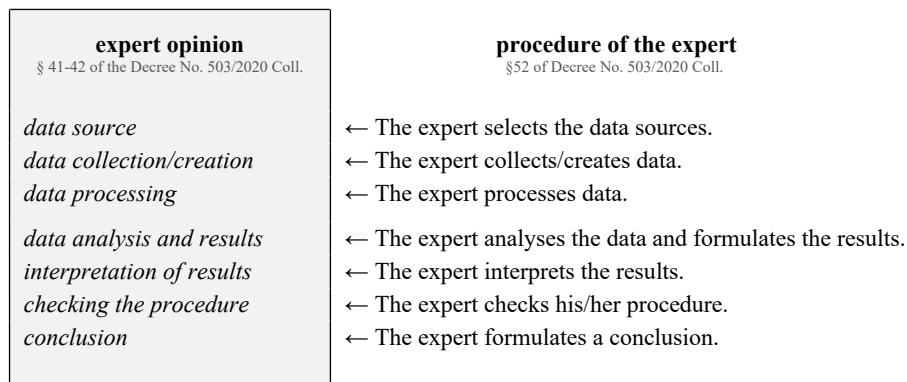
<sup>13</sup> By independence of the expert's person is meant that even if the expert does not know any of the steps of the § 52 procedure of the Act, he must go through these steps if he wants to resolve an expert question that requires an analytical procedure.

of their application due to their independence on the person of the expert and the expert discipline. These conditions for effective reviewability are based on reality, on the actual procedure of the expert. The requirements of an expert opinion are adapted to this.

From an epistemological point of view, when assessing the reasons for the conclusions of an expert opinion, the distinction between the expert's opinion and the expert's procedure must be made. The conflict between the two components, which in principle allow for reviewability, would constitute an error in logical typing, consisting in confusing the expert's report on the expert's procedure with the procedure itself.<sup>14</sup> In such situation, the conditions for reviewability would at the very least be undermined. It is clear that the absence of a requirement for the expert's procedure to reflect all the steps of working with the data in the old regulation made it impossible to examine what necessary steps the expert had to take in addressing the expert's questions.

The correspondence between the expert opinion and the expert's procedure shows, that the expert opinion, as a report on the expert's procedure, acquires the status of an actual expert in the current system of expert reports. The expert opinion mediates the possibility of examining the necessary steps in the actual procedure followed by the expert in dealing with the expert question. It is reviewed *ipso facto* the expert's procedure itself (see Diagram 1).

In summary, the key idea behind the new requirements for the structure of the expert opinion is the recognition<sup>15</sup> that the expert's approach to addressing a given expert question can be reviewable only if the procedure report (expert opinion) *corresponds* with the procedure. Therefore, under the new rules, the expert opinion must reflect all the steps that the expert must inevitably take to resolve the expert question.



**Diagram 1:** The expert opinions as a report on the expert's procedure

<sup>14</sup> The two categories should not be confused, although this is often the case in everyday communication. A report is not the same, as the thing it reports, just as the word 'tree', for example, cannot be confused with an actual tree. See Korzybski-Bateson's thesis 'a map is not the same as a landscape and a name is not the same as the thing' referred to in BATESON, G. *Steps to an ecology of mind*. New York: Ballantine Books, 1979, p. 451.

<sup>15</sup> Explained in detail in ZÁVORA, c. d.

### 3. THE PROCEDURE OF THE EXPERT IN RELATION TO ORAL AND WRITTEN PRESENTATION OF THE EXPERT'S OPINION

With the above structuring of the expert's procedure or expert opinion comes greater demands on the documentation of the expert's conclusions, more precisely on the greater orderliness of their justification. The expert opinion may also be given orally<sup>16</sup>. It is clear that the oral form will place considerable demands on the cognition of the expert (especially memory). Even the oral presentation of the expert's opinion, i.e. the oral *report on the expert's procedure* must sufficiently correspond with the actual procedure. In other words, as for the principle of the requirement of reviewability<sup>17</sup>, it cannot be accepted that the expert did not "remember" to perform a certain step. Given the cognitive limits of human beings, reviewability in the actual LEx regime is better served by fixing *the expert's progress report* in writing.

The written form of the expert opinion now takes on much more importance than it was the case before the entry into force of the ZZ. Under the LExI regime, the written form of an expert opinion could not have fulfilled the same effective function in terms of reviewability as in the new regime. The structure of the expert opinion required under the old regulation (report) did not correspond with what the expert actually does (how he proceeds) when dealing with a given expert question. Therefore, a whole range of information coming from the actual procedure could and did remain occult.

### 4. EVALUATION OF THE JUSTIFICATION OF THE EXPERT'S CONCLUSIONS OF THE EXPERT OPINION IN RELATION TO THE EXPERT'S PROCEDURE

If it is generally a solution to any technical problem (not necessarily by an expert), the subject of the evaluation is usually quite complex information. A lawyer has access to that information invariably through the expert opinion or through the expert's testimony before the court. In terms of reviewability, the expert opinion conveys information about the manner of solution (the expert's procedure) and resolution (the conclusion) of the expert question. The structural logic of the expert opinion then in the evaluation refers to the expert's procedure. As already mentioned, purely from the point of view of the internal logic of the expert opinion *the expert's procedure is assessed by means of the expert opinion*.

In the old rules on expert work, the assessment of the reasoning behind the conclusions remained generally in the expert opinion and its preparation. Consequently, reviewability was understood as a general characteristic of an expert opinion, and thus the *procedure for dealing with expert question* was only unreliably or not at all available: the expert opinion may logically fulfil its mediating function only in direct dependence on the extent to which it corresponds to what the expert has to do in the data handling steps (procedure) in each case. Or, on the other hand, the expert opinion as a report on the expert's procedure is fundamentally dysfunctional if, in terms of its internal logic (structure), it "lives by its own life".

---

<sup>16</sup> I am not referring here to the legal possibility of oral submissions, but to a purely methodological one.

<sup>17</sup> See the requirement of Section 28(1) Lex.

It follows from the above that the assessment of the reasoning of the expert opinion conclusions is not bound by to the expert opinion alone, nor to the expert's procedure alone. Reviewability is in that sense, a measure of correspondence between the procedure report and the actual (real) procedure. It is therefore very likely that the interpretation of the reviewability of the expert opinion was under the LEXI regime is so unclear and unstated.<sup>18</sup>

#### 4.1 ON THE IMPORTANCE OF MAINTAINING MUTUALLY EXCLUSIVE COMPETENCES EXPERT AND LAWYER

The decree regulates the procedure of the expert structurally, not substantively,<sup>19</sup> which in the actual

evaluation of the reasoning behind the expert's conclusions allows the lawyer to remain in the role of a layman and the expert to remain with answers that do not interfere with the legal evaluation.<sup>20</sup>

Structure-based evaluation preserves the *mutually exclusive competencies* of lawyers and experts, but at the same time creates a common level of evaluation whose implicit criteria are enumerated in the steps of the Section 52 of the decree procedure. Finally, the lawyer and the expert can competently "meet" without interfering with each other's competencies.<sup>21</sup> Something like this previous regulation of expert activities did not allow, as no such common level of evaluation existed. Mutually exclusive competences were then a logical stalemate of reviewability.

The 'expert step-by-step procedure' explicitly regulated in the implementing decree also allows effective review of the expert's procedure by another expert. That is, the same steps of the expert's procedure, applied by a lawyer in evaluating expert opinion will be applied by a

---

<sup>18</sup> Detailed interpretation in ZÁVORA, c. d., p. 124-127.

<sup>19</sup> A significant example of the negative impact of an evaluation based on the content-methodology concept (scientificity assessment) is the *Daubert standard* in the USA. Using a system of five extremely rigorous criteria focused on the purely technical component of expert testimony, the Daubert standard forces judges to train in dozens of disciplines. As a result, the principle of mutually exclusive competencies of experts and lawyers. According to then U.S. Supreme Court Chief Justice William Rahnquist "... the *Daubert decision* turned the justices into amateur scientists who lacked scientific training to effectively perform their role as 'gatekeepers' to the admission of scientific evidence before a jury." (GATOWSKI, S. et al. Asking the gatekeepers: A National Survey of Judges on Judging Expert Evidence in a post-Daubertworld. *Law and Human Behavior*. 2021, Vol. 25, No. 5, p. 433-458). Most importantly the fact that the Daubert standard has not caused experts to significantly improve their work (most succinct, the earlier report: National Research Council. *Strengthening Forensic Science in The United States: A Path Forward*. Washington, D.C.: The National Academies Press, 2009; or SANDERS, J. "Utterly ineffective": Do courts have a role in improving the quality of forensic expert testimony? *Fordham Urban Law Journal*. 2010, Vol. 38, No. 2, p. 547-569). For a further explanation of the inappropriate treatment of reviewability by the content concept, see ch. 3 in CONCLUSION, op. cit.

<sup>20</sup> Cf. Supreme Court decisions of 21 October 2009, Case No. 22 Cdo 1810/2009, and 28 March 2018, Case No. 32 Cdo 2197/2016, section 107(1) of Act No. 141/1961, Code of Criminal Procedure, and the Constitutional Court's ruling of 10 March 2015, Case No. II ÚS 2172/14.

<sup>21</sup> In this context, it is worth mentioning the Australian experience, where the authors of proposals to improve the quality of expert of the expert's performance recommend evaluation of the *validity and reliability of the expert's procedure* and knowledge (MARTIRE, K. A. - EDMOND, G. Rethinking Expert Opinion Evidence. *Melbourne University Law Review*. 2017, Vol. 40, p. 967-998). While this is a sound idea, it is too abstract and unworkable, as lawyers are not and cannot be clear about what all the three criteria may entail. Beyond this level of abstraction, the content of the three criteria will vary across disciplines. For non-scientific disciplines, the completely inapplicable (see also the Daubert standard and judges as *gatekeepers*). This is because it is still and always a content, not a structural concept.

reviewing expert when reviewing the procedure of the previous expert, as Section 45 of the decree obliges him to do.

The review examiner shall use the structure of the procedure specified by the decree in his review arguments of the expert without interfering with the competence of the lawyer. The evaluation criteria are at both sides are aligned and clarified: the lawyer knows what he or she is looking for when evaluating the expert's evidence and the expert knows exactly what to ask in the expert opinion (see Diagram 2).

Evaluating the expert's process step by step can only make sense if both experts and lawyers are familiar with the steps of the procedure in advance. This, by the way, is a basic condition of any criterion-based evaluation. If the evaluator did not know even one of the steps of the expert's procedure or was not aware of its significance, the evaluator might miss it /omit it, for example. Absence of information on how any of the steps of the expert's procedure were implemented, can have extremely serious consequences.<sup>22</sup> Under the previous regime, the universal steps of the expert's procedure were not known. Thus, even the evaluation of an expert opinion did not have the underpinnings to ensure its effectiveness.

#### 4.2 CORRESPONDENCE OF THE EVALUATION CRITERIA AND THE STEPS OF THE EXPERT'S PROCEDURE

Previous practice, not only in the Czech Republic, has shown that the evaluation of the justification of conclusions of an expert opinion, and thus the quality of the expert's work, is at least unreliable without criteria.<sup>23</sup> The question of what criteria

---

<sup>22</sup> One of the Czech experts on expert witness law asked me a sceptical question, what could be the point of a good *data processing* step? In the article DROR, I. E. - HAMPIKIAN, G. Subjectivity and bias in forensic DNA mixture interpretation. *Sci Justice*. 2011, Vol. 51, No. 4, p. 204-208, the authors present the results of their experiment in which they demonstrate the evidentiary unreliability of DNA profiling when it is not clear how it was processed data. In the context of a criminal case, they sent a DNA sample that was a mixture of semen from multiple men, to 17 laboratories, only one of which came to the same conclusion as the one that led to that led to the conviction. According to the authors cited, the problem was that a very small DNA sample is often contaminated or damaged, which is monitored in the 'data processing' step. Or a similar example where a tiny DNA sample is amplified (processed) by PCR in order to be analysed at all. If this method of *data processing* is not mentioned in the expert report, it may not be apparent that the amplification of a tiny sample is adapted to the needs of the identification method – simplified the alleged perpetrator may not have been at the crime scene at all, etc., see also in MURPHY, E. *Inside the cell: the dark side of forensic DNA*. New York: Nation Books, 2015; SCHECK, B. - NEUFELD, P. DWYER, J. *Actual innocence: when justice goes wrong and how to make it right*. New York: Signet, 2001).

<sup>23</sup> The old expert regulation lacked criteria for evaluating expert evidence, so there was no than to draw on case law (ŠEVČÍK, P. - ULLRICH, L. *Znalecké právo*. Praha: C. H. Beck, 2015, p. 226). However, case law provided only highly abstract supports (rather principles) for the evaluation of expert evidence opinion (e.g. the Supreme Court decision of 22 January 2014, Case No. 26 Cdo 3928/2013). Absence of a common level of evaluation (lawyers/experts) necessarily meant a search for the limit of "how far a lawyer can go" so that it would not be beyond his competence. Thus, in the context of highly abstract considerations, there was naturally ambiguities or contradictions also arise in case law (e.g. the Supreme Court decision of 21 October 2009, Case No. 22 Cdo 1810/2009, versus the Constitutional Court's ruling of 30 April 2007, Case No. III ÚS 299/2006). The case-law references, which in principle cannot be faulted, were used to assess the reasoning of the conclusions themselves of the expert report were difficult to use, which naturally became apparent only when they were applied. In the courtrooms, instead of evaluating the expert evidence by means of *ad rem* questions, more evaluation was made of the person of the expert by the use of misleading *ad hominem* or, on the contrary, *ad verecundiam* arguments (see more in Chapter 2 in CONCLUSION, c. d.). A similar situation persists in Australia, where in assessing the admissibility of expert evidence criteria focusing on the person of the expert, rather surprisingly, are taken into account rather than his or her specific performance. These include formal qualifications, training, years of

can be functional in an evaluation is, in relation to the reviewability of great significance.

As mentioned above, the new conceptual change is based on correspondence of the structure of the actual procedure of the expert in dealing with the expert question with the structure of the requisites of the expert opinion as the report in which the expert records his or her procedure. Through the prism of Bateson's epistemological metaphor,<sup>24</sup> the expert opinion is a map and the actual expert procedure is the landscape that is being mapped. By codifying the steps of the expert's procedure, which as a whole form the structure of the expert's procedure, *ipso facto* ensures that the expert opinion will be mapping the actual landscape in question (working with data in analytical work).

In practice, the conceptual change in the new regulation will itself require an assessment of the degree of correspondence between the expert's progress report and the procedure itself, through the prism of the individual steps as evaluation criteria. A simple question, e.g., "how does an expert witness, when dealing with a professional question, has processed the data", invites a comprehensive evaluation of not only the step of the procedure "processing the data", but at least also to evaluate the preceding step, so immediately the next step of the procedure (data collection/production, data analysis). The iterative links between the individual steps require justification in context. If the expert in the expert opinion e.g. does not state how he processed the data (§ 55 of the decree), it cannot be established whether the "collected data" was not (§ 54 of the decree) somehow degraded, altered or shifted in meaning during their processing. etc. Similarly, the very next step (data analysis) requires the data to be processed (prepared for analysis) correctly and sufficiently. Although in the example above would only involve the absence of a single step in the expert's process, it is ultimately not reviewable, what effect the absence of information on the processing of the data had on the accuracy and correctness of the expert opinion.

#### 4.3 THE PROCEDURE OF THE EXPERT IN RELATION TO THE CHARACTERISTICS OF THE EXPERT OPINION

Section 28(1) of the LEx imposes an obligation on the expert to provide a report *complete, truthful and reviewable*. This is a triad of characteristics attributed by law to an expert opinion. These three characteristics thus naturally form the basic structural and substantive foundations in the evaluation of expert opinion.

The interpretation of these characteristics of an expert opinion is closely related to the structural concept of justifying the conclusions of an expert opinion. The underlying principle is the relationship between the actual procedure of the expert (§ 52 of decree) and the 'record' of

---

experience, the expert's resilience in response to cross-examination, etc. (EDMOND, G. Legal versus Non-Legal Approaches to Forensic Science Evidence. *International Journal of Evidence and Proof*. 2016, Vol. 20, No. 1, p. 24-25). In this context, it is also worth noting the PCAST report, which points out that even generally well-established professional characteristics such as membership in professional societies, various certification or accreditation programs, expert witness publications, standardized protocols, and codes of ethics, cannot substitute for an expert's proper and reliable documentation of a very specific case, or more precisely, how he or she has proceeded to address a very specific professional issue (see the President's Council of Advisors on Science and Technology. *Forensic Science in Criminal Courts: Ensuring Scientific Validity of Feature-Comparison Methods: Report to the President*. [Washington, D.C.]. Office of the President, President's Council of Advisors on Science and Technology, 2016, chap. 5).

<sup>24</sup> BATESON, *Steps to an ecology of mind*, p. 451.



that procedure in the relevant parts of the expert opinion (§ 41 of the decree). As already mentioned in the previous chapters, *the reviewability* of is logically determined by the degree of correspondence of the procedure actually carried out of the expert with the report on this procedure (expert opinion). The conditions for reviewability (general presumption) are created by the requirement that the structure of the expert's procedure is entirely correlated with the requirement for the structure of the elements of the expert opinion.

In § 42 of the decree, the requirement for a complete recording of the expert's procedure is expressed. This means that the expert's report contains all steps of the procedure and each of these steps is justified.<sup>25</sup> In doing so, the process of genesis of the justification of each step in the expert opinion is the actual implemented procedure of the expert. Therefore, the completeness of the procedure of the expert will ultimately determine the *completeness* of the expert opinion.

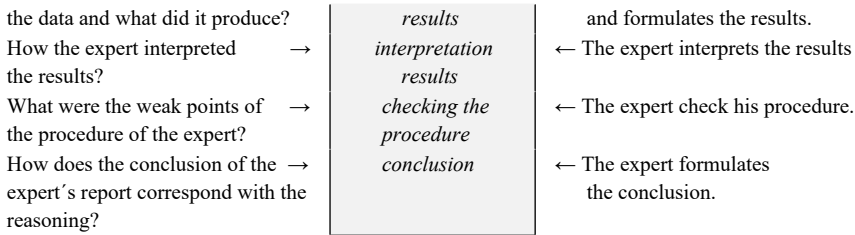
An important circumstance is then the relationship between the expert's procedure described in the expert opinion to reality. In other words, in assessing the *veracity* of the expert opinion, it is appropriate to question whether the expert's procedure described in the expert opinion in dealing with the expert question conflicts with the facts.<sup>26</sup> This question certainly has overlap with other contexts. One of these contexts is the personal morality of the expert and the observance of scientific ethics. Most serious manifestations of violations of scientific ethics include fabrication, falsification (falsification) and plagiarism<sup>27</sup>. Plagiarism is practically absent in the expert field, because the expert usually tackles completely original tasks. In principle, these are case studies. Fabrication and falsification are, in principle, most closely related to the procedural steps involved in with the acquisition or processing of data or with the results of analyses (§ 25b-d of the decree).

evaluation criteria		expert opinion		expert's procedure
What were the expert's data sources?	→	<i>data source</i>	←	The expert selects the data sources.
How did the expert collect/create the data?	→	<i>data collection/creation</i>	←	The expert collects/creates the data.
How did the expert process the data?	→	<i>data processing</i>	←	The expert processes the data.
How the expert analysed	→	<i>data analysis and</i>	←	The expert analyses the data

<sup>25</sup> The absence of even a single step in the process creates a deficit in the rationale for addressing the technical question as a whole because the individual steps of the procedure have iterative links with each other, where in principle the subsequent step 'guards' the correctness of the immediately preceding step.

<sup>26</sup> On the concept of veracity, I refer to Risinger and Sachs' apt definition of expert evidence, expressed triad: *the existence of error-free knowledge (truth), confidence in the existence of knowledge (belief), and justification of knowledge (justification)*, where in reverse order it reads: without good justification, the judge cannot believe that error-free knowledge exists (see RISINGER, D. Rationality, Research and Leviathan: Law Enforcement-Sponsored Research and the Criminal Process. *Michigan State DCL Law Review*. 2003, Vol. 4, p. 1024). Laid out in context in Zavora, op. cit. p. 148.

<sup>27</sup> The three most serious and frequent violations of scientific ethics according to MARTINSON, B. C. - ANDERSON, M. S. - DE VRIES, R. Scientists behaving badly. *Nature*. 2005, Vol. 435, No. 7043, p. 737-738, *are inventing (fabrication), falsification and plagiarism*. For disciplines without a scientific basis, one can apply similarly.



**Diagram 2:** Criteria for the evaluating expert evidence match the steps of the expert's procedure, mediated by the expert opinion

## 5. USE OF THE INTERNAL STRUCTURE OF THE EXPERT OPINION IN SUPERVISION ACTIVITIES

Pursuant to Section 35(1) of the LEx, the authority supervising

the performance of expert activities is The Ministry of Justice (hereinafter referred to as "MJ"). Of the broader scope of supervision of expert activities, for the purposes of this paper I will limit myself to the use of the described internal structure of an expert opinion when assessing the *factual correctness of an expert opinion*, which the MJ is entitled to do under section 35(2) of the LEx.

### 5.1 THE EXPERT'S PROCEDURE AS A PROCESS OF GENESIS OF THE CONTENT OF THE EXPERT OPINION

Section 35(2) of the LEx defines the scope of substantive supervision

in terms of basic questions, namely whether the expert has acted with professional care in preparing the opinion<sup>28</sup> and whether the expert opinion complies with generally accepted practices and standards in the field and industry. Both questions are linked in the law to the concept of expert opinion, i.e. in terms of the internal logic of the expert opinion to the report on the expert's procedure. However, in fact, they relate to the assessment of the actual (actually performed) procedure of the expert in solving the expert question. In the given case, the usefulness of the distinction between the expert's progress report and the procedure itself, or what is determined or controlled by what in terms of internal logic of expert opinion.

As has been said repeatedly, from the point of view of the internal logic of the expert opinion, *the expert reports in the expert opinion on how he/she proceeded in dealing with the given expert question*. The requirement for very specific steps in the procedure, expressed by listing in § 52 of the decree, corresponds to what the expert actually does when he or she solves the expert question, and not what he should do, for example, according to a theoretical model.

From the point of view of simple logical deduction, it is suggested that the expert first addresses the expert question (mentally and practically proceeds) and then only writes a report on his solution (expert opinion). Otherwise, he would simply have nothing to write about. The essentials of an expert opinion as set out in Section 41 of the decree necessarily reflect the expert's procedure, not the other way around. At assessing the reasons for the conclusions of the

<sup>28</sup> Section 35(2) of the LEx expresses a requirement to *examine the expert's procedure*, but this requirement is linked to the examination of the compliance of the expert's procedure with generally accepted practices and standards of the professional field. The law does not explicitly provide for the examination of professional care in solving the assigned professional question.

expert opinion, it is therefore necessary to understand the expert's procedure as a *process of creating the content* of those particulars (§ 41 of the decree) which correlate with the steps of the procedure of the expert and with the requirements for their execution (§ 52 to 58 of the decree).

Section 42 of the decree obliges the expert to indicate for each step of the procedure also the used methods or usual procedures. Finally, this obligation requires the expert to describe how both *mental* (e.g. knowledge of standard methods) and *practical*<sup>29</sup> (ability to apply the method) component of his/her procedure in that particular case. This allows for a fairly comprehensive insight into the expert's exercise of professional care, which is well suited to supervisory activities (cf. § 35(1) of the decree). Within the mental procedure, the expert applies at least methodological (transdisciplinary) and disciplinary knowledge, logical and critical thinking. *Practical procedure* is, by contrast more tied to the experience and skills of the expert and can therefore be seen as a set of completely specific, field-orientated/specific activities, which often require specific/targeted training. The expert will therefore not only state in the expert opinion what method he or she used, but will also briefly describe how he applied it in practice.

In summary, the expert must submit a report on his or her procedure (expert opinion), where the structure of the report is determined by the expert's actual procedure (§ 41 and § 52 of the decree). The expert's procedure, as already mentioned, is the process of creating the content of the relevant particulars of the expert report. Therefore, it may be considered that the absence of certain information in the expert's report is the absence of the existence of a corresponding step in the expert's procedure.<sup>30</sup> This is the basic logic that follows the correspondence between the expert's action which has been taken and the report of that procedure contained in the expert opinion.

## 5.2 IDENTIFICATION OF MATERIAL DEFECTS IN THE EXPERT OPINION AND *LEGE ARTIS* PROCEDURES

The general objective of examining and checking the factual correctness of an expert opinion will be to identify defects in the expert's procedure as part of the MJ's supervisory activities of *identification of defects in the expert's procedure*. Identified defects may concern both *the practical procedure* of the expert (e.g. physical manipulation with sample/data) as well as *mental procedure* (e.g. numerical error, use of incorrect method). The two types of defects can be distinguished by the requirements for the presentation of complex information of the expert's procedure, implicitly including both mental and practical performance information.

It is clear that substantive defects in expert opinion may have varying degrees of complexity and also have varying effects on the accuracy or correctness of the expert opinion. The identification of certain of factual defects in the expert's procedure will therefore require an expert assessment, which MJ has at its disposal within its expert advisory boards.

The *lege artis* procedures are an important support in identifying substantive defects. These are information sources (the so-called standards), which the new regulation of expert activities presupposes in the very definition of the basic scope of substantive supervision (§ 35(2) of the

---

<sup>29</sup> I have used the terms *practical and mental procedure* purely for the purposes of my interpretation. In fact, both are these components are, of course, implemented simultaneously in the form of specific psychophysical activity.

<sup>30</sup> This is a strictly logical interpretation of the absence of information in the expert report from a structural point of view. In fact, the expert can add information if it exists.

LEx), as well as in the provisions of Section 28(5) of the LEx, according to which an expert opinion must be prepared in accordance with generally accepted practices and standards in the given field and industry. The standards foreseen in the law, for reasons of clarity, will have to be separated from the field-specific standards<sup>31</sup> in terms of their structure and scope. Sooner or later, not only supervisory practice will ask for the creation of such "expert" standards for individual fields and disciplines that are concise and, in particular, correspond to the structure of the procedure of an expert according to § 52 of the decree, and consequently with the requirements of an expert opinion according to § 41 of the decree. Specifically, this would mean that in an expert standard, every step of the procedure, the methods or common practices of the field and industry would be listed with their brief description (see Diagram 3).

Such a standards format would conform to the internal logic of expert opinion and bridge the widely diversified formats of field - orientated standards even within a single discipline. A supervisor who is well versed in the structure of the expert's process "proposed" into the structure of the standards as well, could give expert advisory boards very specific suggestions to refine or update the "expert" standards. Supervisory experience with structured scrutiny of the professional care and practices of *lege artis* can thus play a significant role in improving the quality of expert witnesses' work.

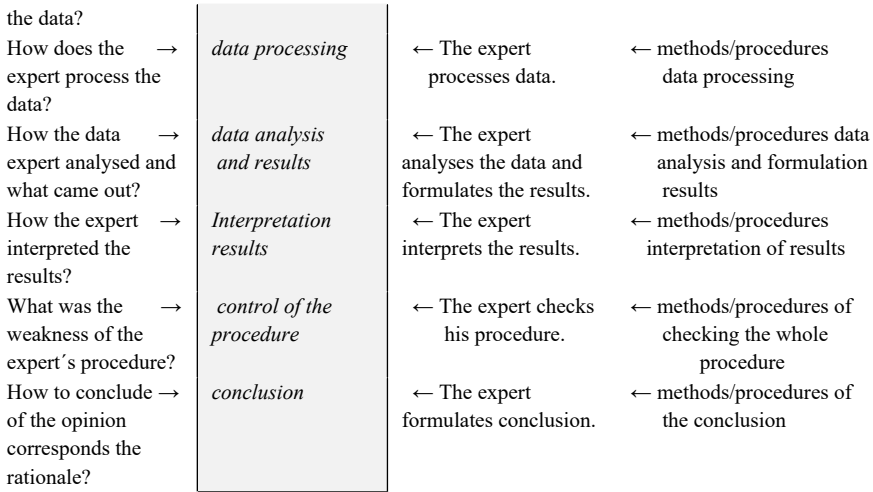
In the context of the application of "expert" standards in evaluating expert evidence of expert testimony, it should be emphasized that even "expert" standards cannot be understood as a kind of "ultimate authority". Fortunately, the new regulations on expert witnesses provide for this in Section 28 paragraph 5 of the Lex, which allows for an exception whereby an expert may, in justified cases, depart from procedures of *lege artis*. Generally speaking, a diversity of theories is always beneficial for science, of knowledge and experience, not just the application of established theories and practices that would thus taking on a negative connotation of arguing from authority.<sup>32</sup> As aptly noted by Martire and Edmond, in many cases it is downright misleading to address whether a method or procedure works or doesn't work (all or nothing), but rather how well the method works and under what conditions.<sup>33</sup>

<b>evaluation criteria</b>	<b>expert opinion</b>	<b>the procedure of the expert</b>	<b>standards</b>
		§52 of Decree No. 503/2020 Coll.	§ 28 para. 6 of Act No. 254/2019 Coll.
What should the expert data sources? →	<i>data source</i>	← The expert selects the sources data.	← selection methods/procedures data sources
How the expert collected/created →	<i>data collection/creation</i>	← The expert collects/creates data.	← collection methods/procedures data creation

<sup>31</sup> By disciplinary standards, I usually mean relatively large and complicated documents serving the professional practice of a particular discipline. The structure of such subject matter standards does not usually correspond to the structuring of the expert's procedure (enumerated in § 52 of the decree).

<sup>32</sup> See already Feyerabend's concept of *counterinduction* in FEYERABEND, K. P. *Against method: outline of an archistic theory of knowledge*. Minneapolis: University of Minnesota Press, 1970, p. 38–45.

<sup>33</sup> MARTIRE – EDMOND, c. d., p. 994.



**Diagram 3:** Expert standards as content guides when examining the experts *lege artis* procedure

## 6. STRUCTURED PROCEDURE OF THE EXPERT AND THE PARTY TO THE PROCEEDINGS

In terms of the purpose of expert opinions, in addition to lawyers and experts, the key structure of the expert's step-by-step process should be adequately understood by the party. The party is usually both a legal and a professional layman.

The clarity of the steps of the expert's procedure does not need to be particularly defended. Firstly, the structure satisfies the appeal of logical economy and secondly, the individual steps of the expert's procedure are familiar to the layperson from other ordinary human activities that have also analytical in nature.<sup>34</sup> Therefore, even a layperson will be able to draw from ordinary experience at an elementary level will understand the individual steps of the procedure that the expert is supposed to demonstrate in the opinion.<sup>35</sup>

For a layman, the clear steps of the expert's procedure represent an opportunity to reflect their knowledge of the circumstances of the expert problem at hand. This information may indeed be irrelevant (or rather, it will be necessary to assess whether such facts are relevant to the resolution of the expert question or not). In accordance with the provisions of Section 40

<sup>34</sup> This can be illustrated with the example of mushroom picking - data source = forest, data collection = mushroom picking, data processing = cleaning mushrooms, data analysis = visual search and attribution of known characteristics of edible mushrooms, results of analysis data = list of characteristics found, interpretation of results = justification of the characteristics found for a given mushroom, perhaps using literature (mushroom atlas), conclusion = edible, can be eaten.

<sup>35</sup> In this context, the Ministry of Justice has published a very apt analogy between the steps of the expert's procedure and the steps of the procedure of a simple antigenic covid test, with which the currently familiar to the general population (Ministry of Justice. A didactic aid to the new structure of the of the expert report. In: [znalci.justice.cz](https://znalci.justice.cz) [online]. [cit. 2022-01-03]. Available from: [https://znalci.justice.cz/wp-content/uploads/2021/06/Sharpovo\\_schema-1.pdf](https://znalci.justice.cz/wp-content/uploads/2021/06/Sharpovo_schema-1.pdf)

paragraph 1c of the decree, the party may then already claim such facts in the assignment of the expert opinion, because they could affect the accuracy of the expert opinion. The decree in this case, therefore, provides for the application of the expression and opinion (lay) level of such facts, since the commissioners of expert opinions include complete laymen.

Lawyers, judges, police officers and other commissioners of expert opinions have a certain professional insight into the problem at hand. This means that their assignment is in a sense qualified. A lay person, on the other hand, can also be a source of significant insights.

## 7. CONCLUSIONS

The following conclusions emerged from this theoretical study:

(a) The existence of a requirement for a structured expert procedure regulated by Sections 52 to 58 of the decree creates a basic condition for the effective reviewability of expert opinion. An expert opinion is, in terms of its internal structural logic, a *report on the expert's procedure* and cannot be confused with the expert's procedure. The degree of correspondence between the expert's procedure (resolution of an expert question) and the expert opinion (report on the resolution of an expert question) determines the extent to which the expert opinion is reviewable.

(b) The individual steps of the expert's procedure referred to in the requirement of Section 52 of the EA are not theoretically postulated, but can be distinguished in any nature of a person's analytical activity (work with data). Therefore, these steps are independent of the person of the expert as well as the expert's field and can be applied universally to disciplines without a scientific basis. Structured expert procedure according to § 52 of the decree has a certain number of steps and their legal order. The individual steps of the procedure have iterative links between them, so that each subsequent step 'guards' the correct execution of the previous step. All of the above characteristics of a structured expert procedure are sub-conditions for the reviewable performance of an expert solving an expert question.

(c) The expert opinion maps the expert's process by which the expert mentally and practically addresses expert question. The expert's actually implemented procedure is thus a process of genesis of the contents of the relevant elements of the expert opinion. Therefore, the assessment of the reasoning of the expert's conclusions of an expert opinion is *de facto* an evaluation of the expert's procedure through the expert's opinion as a report on that procedure. This is also the case, by analogy, in the context of a review or substantive review by the supervisory authority.

d) Since the step structure of the expert's procedure under Section 52 of the decree corresponds directly with the requirements of an expert opinion according to § 41 of the decree, it appears at least to reflect the individual steps also in the expert standards, which the law presupposes. Such a structured "expert standard" of a given discipline should ensure the clarity and comprehensibility of the recommended methods and usual procedures in relation to the individual steps of the expert's procedure. A uniform structuring of expert standards would be particularly important for substantive review by the supervisory authority and also for the criterion evaluation of the justification of the conclusions of the expert opinion.

PhDr. Jiří Závora, Ph.D. et Ph.D.

Institute of Forensic Sciences Prague, z. ú.

respondeo.dicendum@gmail.com