

# **The problems of judicial expertise in criminal proceedings**

## **Abstract**

The thesis focuses on selected problems of expert evidence, which have an impact on the quality of the expert's conclusion. Its aim is to identify the problems not only within the legal framework, to evaluate their impact and to propose their solution.

The first part describes the legal regulation of evidence in criminal proceedings, focusing on expert evidence. It also describes the legal regulation of expert evidence in Act No. 254/2019 Sb., on Experts, Expert Offices and Expert Institutes, and in related decrees.

The second part describes the historical development of the legal regulation of expertise from 1873 to the present. It also examines the criticisms of Act No. 36/1967 Sb. on Experts and Interpreters and assesses how the legislator has responded to them in the new regulation.

The third part of the thesis focuses on the problems related to the guarantee of the quality of the expert's conclusion. The first problem raised is the absence of experts in some fields, for example in child psychiatry. It describes the implications of this problem for expert review mechanisms. The second problem addressed in the paper is the effect of cognitive bias on expert conclusions. The thesis describes the different types of cognitive bias and focuses on confirmation bias and the factors that cause it. It looks at the studies conducted among experts to confirm its existence and the media-famous Madrid bombing case where the influence of this bias was evident. This section concludes with a discussion of the impact of confirmation bias on line-up and revision expert reports, where a solution is proposed. The thesis concludes by discussing the expression of probability in expert reports using likelihood ratios and evaluates the possibility of expressing probability verbally. The calculation of the likelihood ratio using Bayesian inference is described, and its use is explained using examples of paternity determination and forensic handwriting examination. It also proposes an amendment to Decree No. 503/2020 Sb., on the performance of expert activities, which would introduce an obligation for experts in cases where two mutually exclusive claims are to be evaluated by means of expert evidence.

## **Keywords**

expert testimony, confirmation bias, likelihood ratio