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The experts' errors: who is hiding behind the expertise?¹

From the beginning to the end, man, and not technology, determines the integrity of the evidence.

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In order to adjudicate civil, administrative or penal litigations, it is often necessary to obtain the opinion of one or more specialists. How can one ensure that the expert, whether hired by a party or not, fully participates in the resolution of a legal case? This requires a clear definition of the issue(s) and the use of a suitable research method, tasks which the most qualified expert(s) will have to carry out. But to what legal, professional and ethical norms does an expert have to answer? There are legal limits, these are the expert certified organisations and professional organisations from which experts come and which are responsible for their actions. However, the person of the expert is always the weakest link: his or her pride can stand in the way of truth. Experts have to be able to work in a context in which their commitment is required and in which they will be expected to justify themselves more.

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² Doctoral dissertation 8 by A.P.A Broeders, *Op zoek naar de bron. Over de grondslagen van de criminalistiek en de waardering van het forensisch bewijs* (diss. Leiden), Deventer: Kluwer 2003.

1. Deceased due to a faulty expert's report

This cursed expert's report! How can one make sure that an expert, whether hired by a party or not, participates in the resolution of a legal case? A mistake in the expertise can have dramatic consequences. A couple is thrilled by the birth of their first child, a son. The child is not yet three months old when the mother finds him dead in his crib. A little over a year later, their second son is born, and he too is found suddenly dead, only two months old. For a baby to be found dead in this crib twice in a row raises questions. Suspecting a non-natural death, a criminal investigation is opened in which the mother is the suspect.

A paediatrician, highly qualified and well known specialist in the field of child abuse, is asked to investigate the case. He is firmly convinced that the case of these two children cannot be one of natural death. His argument is based on statistics. The double murder verdict is based on this expert's report and the mother is sentenced to life in prison, even during the appeal.

This statistic approach leads to great turmoil for statisticians following the tribunal's decision: the method use and the mortality rate are false in theory and in practice.¹ After a long debate over the probable miscarriage of justice with this conviction, a revision is opened. It appears during the autopsy of one of the babies that a lethal infection is found. Based on a more realistic model and on more reliable figure, the statistical argument determining that the combined death cannot be a coincidence is no longer approved. The mother is freed after three years in prison. The trauma of losing her children as the heavy toll of the

subsequent legal ordeal were overwhelming: she eventually dies from alcohol poisoning.²

The expert is chastised for his behaviour: his license was revoked for abuse of authority. This decision was later struck in appeal, and its cancellation led to sharp criticism. This famous paediatrician would seem to have worked several times as an expert in criminal cases concerning child mortality within a family. The affairs had to be reviewed one by one. In one of the cases of multiple deaths within a family, after the trial's revision, the suspect was acquitted. Another similar case was also in trial when the expert's erroneous approach was found out. That mother was also acquitted.³

Here is thus the case of someone whose scientific reputation led to him being requested time and again, and then turned out to have been the wrong choice. Another example: in Canada, a distinguished child forensic pathologist was brought forward as an expert for cases involving suspicious deaths.

While he was one of the most prominent experts in the field of shaken baby syndrome, and in spite of his reputation, increasing doubts sprung in the penal law field as to the exactitude of the methods used and the quality of his reports. So an information was required to appreciate 45 penal cases, which uncovered that the expert "had made questionable conclusions of foul play in 20 cases, 13 of which resulted in criminal convictions." This case was used once again to highlight the way in which the coroner should operate.⁴ Due to the actions of these experts, parents

² In this case, it is the legal error relating to the solicitors Sally Clark, murder suspect (1964-2007). See *R v. Clark* [2003] EWCA Crim 1020 (11 April 2003).

³ Angela Cannings was the acquitted after revision, *R v. Cannings*[2004] EWCA Crim 1 (19 January 2004) Trupti Patel was the one acquitted in first instance.

⁴ G.D. Glancy & C. Regehr, 'From schadenfreude to contemplation: lessons for forensic experts', *The Journal of the American Academy of Psychiatry and the Law* 2012, vol. 40(1), 81-88. On this issue,

¹ The Royal Statistical Society (UK), 'Letter from the President to the Lord Chancellor regarding the use of statistical evidence in court cases', 2002.

have been wrongly accused of the manslaughter or murder of their children. It was therefore recently recommended that many more searches for mistakes in medical and forensic fields be carried out.⁵

Nobody wants to adjudicate wrongly because of mistakes made by experts; for in the end, justice itself is discredited. How can one prevent this? This article will focus on the issue of choosing the expert who will either support a lawyer as the speciality for a party or inform and advice the judge as a neutral specialist. How can one solve this issue from a practical point of view? Is it a question of better legal environment, or even of stricter, better training for experts or more intervention on the content of scientific professional organisations? Within what moral limits can one accept that the expert operates? Should we first worry about the undesirable personality traits of experts? In other words: what are the psychological qualities that an expert should have beyond his professional competence? Let us start by describing this issue.

2. The nature of the issue

Why did the experts make mistakes? In the first case, the paediatrician's zeal in fighting against child abuse made him lose perspective. In the second example, the expert was given the status of hero through a breach of trust. Why do they behave in this way? Is this a narcissist character trait that experts have? What happens in a professional's mind when he is given such an important legal mission? Is it due to a mistaken inclination for heroism, or is it due to technical mistakes inherent to the operation itself?

Such problems with failures of the system or with experts guilty of malpractice are not unique to the penal field, they can also be found in other branches of law (see below). While their weaknesses can have major consequences for the summoned party, they are less dramatic than being wrongly imprisoned. The answer to the question "what links the expert's competence in this case to the legal context" is not just the description of the essential knowledge of the law and the necessary intellectual as well as professional qualities, but also concerns his character traits. How can one prevent in a concrete manner the experts' regrettable practices? This topic has four parts, and each of them has its own responsibility: (a) legal professionals as sponsors, (2) organisations proposing certified judicial experts, (3) professional or scientific associations which the experts belong to, in terms of phrasing and maintaining standards, and (4) the expert himself, in terms of the person accepting the mission. The first three factors determine the context within which the expert operates, the fourth focuses on the agent's intents and actions. How can one coordinate the context and the expert in action to reach an optimal expert's report? Who is liable, and what

should this entail? I will discuss these four factors, and end with a few conclusions.

3. The judicial sponsors: competent, unbiased, and doing their best!

The purpose of the expertise is to decide on certain facts (fingerprint search, DNA, etc.) or, in a wider sense, to allow one to reconstruct the causes behind certain facts, and in criminal law, to evaluate the mental health of an accused person. Obviously, the mission (which must match a minimum of conditions⁶) always precedes the release of the expert's report. After it come the practical resolution of the issue and the investigation method, and all of this is carried out by one or more natural persons. Who are the judicial sponsors? It depends on the constituency and the point of evolution reached by the procedure.

In penal law, the phase preceding the hearing (the preliminary research, see art.132 SV) is distinguished from the hearing phase itself. It is impossible for the police to choose an expert in either of these phases. The assistant prosecutor's power from art. 150 par.2 SV is explicitly forbidden by the Public Prosecution Service. This same Public Prosecution Service can only appoint registered experts (whether the defence requests it or not) (see art.150 par.1 SV) whereas the official receiver judge is not allowed to appoint experts who are not registered even if the Public Prosecution Service or the defence request it (art.227 par.1 SV). During the hearing phase, the hearing judge can refer himself to the official receiver judge (art.316 par.1 Sv). However, he can himself appoint a new expert and let him assist (art.315 par.3 second and third phase Sv).

In civil law, during the pre-judiciary phase, the lawyer of a party will look for someone who can later act as an expert for this party.

In accordance with art.194 par.2 Rv, the trial judge can appoint one or more experts. In that case, he becomes a legal expert. Each person appointing an expert will acquire the report, but all people acquiring the report are not necessarily the ones appointing the expert.

What kind of substantive criteria should such a report meet? They can be divided into pre and post criteria. Since a judicial expert ("legal expert") is appointed by a civil, penal or judiciary administrative authority, there will systematically be a formal and legal framework behind the appointment of the expert(s).

"After accepting your appointment as expert, you are required by law to carry out your task in an impartial manner and to the best of your ability. It is highly important that you respect this. In many cases, the result of the expertise will determine which party will be successful in front of the judge."⁷

In penal law, according to the terms of art. 5 par. 3 SV, the expert, when appointed, is required to draw up

see also A.P.A Broeders, *Op zoek naar de bron. Over de grondslagen van de criminalistiek en de waardering van het forensische bewijs* (diss. Leiden), Deventer: Kluwer 2003, p. 413 e.v.

⁵ A.M. Christensen e.a., *Error and its meaning in forensic science*, *Journal of Forensic Sciences* 2014, vol. 59(1), p. 123-126.

⁶ R.W.M. Giard, *La mission d'un expert: l'importance des questions ouvertes*, *EeR2013*, afi. 2, p. 41-

⁷ Leidraad deskundigen in rechtszaken, § 44, Raad voor de rechtspraak. Refers to art. 198 par. 1 Rv.

his report according to the truth, in its entirety, and with intelligence. This disposition is part of a wider legal framework known as the Law of the penal law expert.⁸ Finally, in administrative law, art. 8.34 par. 1 Awb states that the expert must carry out his mission in an impartial manner and to the best of his or her abilities. Within the judicial rules that concern legal experts, two essential elements are always mentioned: (1) the relationship between the expert, the judge and the party(ies) in the trial, and (2) the content of his message, the epistemological dimension. These limits are rather vague. For some issues, these days, the Judicial Council has laid out more concrete indications. In terms of civil law, for examples, there are: *The directives for experts in civil law, mainly aimed at legal experts.*⁹ For regulation questions, one can refer oneself to: *The directives for regulatory matters.*¹⁰ In penal law, the Netherlands Register for Court Experts (NRGD) established a code of conduct.¹¹ Here are the rules and indication that precede the expertise. What is the role of the judge when it comes to the *ex-post* evaluation of the reliability and usefulness of an expert's report? Thanks to jurisprudence, criteria have been developed to test the admissibility of experts' reports. In the United States, a Supreme Court decision was temporarily important in the Daubert case, and followed by two very similar judgements; indeed, they were nicknamed the Daubert trilogy.¹² In it, it is said that by checking the scientific and methodological bases of the report, the judge definitely has the role of guardian in the case. Due to these judgements, the requirements were mentioned when the federal rules were adapted: Rule 702 over "Testimony by experts."¹³ It remains to be seen whether the Daubert rules will solve the issue of clarifying whether or not the expert's report is scientific.¹⁴

The Dutch jurisdiction also adjudicated the question of the reliability of the experts' reports. "Stick to what you know!" was a piece of popular wisdom found in the Cobbler judgement,¹⁵ in which one wonders if an

orthopaedic shoemaker can be considered competent to appreciate the tracks of someone's gait when looking at the footprints found.¹⁶ The Supreme Court stated in this judgement that if the judge is confronted with an expert's report, when necessary, he must ask whether the field of competence really does stretch to the investigation and if it does, what are the methods used. The expert must then explain why the method used is reliable and justify his or her expertise. To what extent does the judge wish to actively look for the qualifications and practical skills of the experts, and can he do it? It is very clear that someone needed as an expert, whether he works for one of the parties or for the court, will consequently always need to have the five fundamental values: independence, impartiality, precision, competence, and integrity. Described thus, it seems rather abstract. Budding experts will have to learn the code of conduct earlier and train themselves to acquire knowledge and skills. Training tasks could be allocated to the certified organisations on one hand and the professional groups on the other hand.

4. Certifying organisations

Can one demand that an expert hired for a judicial mission be genuinely expert on that topic? What kind of verification norms should be established, and is it possible in the Netherlands to create a quality label for experts? The answer to the first question is a resounding yes. After lengthy discussions, Crombag's farewell speech¹⁷ influenced this answer the most: an expert "can't be picked up off the street." The expert in question has to be aware of the relevant constructive law, be qualified in objective investigation methodology, known how to interpret the investigation's data and draw conclusions from it to establish a clear report of his findings.

SDR, a Research Circle for Experts and Procedures,¹⁸ in collaboration with the Jurisdiction Council, established a postdoctoral academic training programme within the Leiden university of law, and since 2004 has been training experts in all kinds of specialities to become judicial experts. In 2007, the Netherlands Register of Court Experts (NRGD) was created, in charge of training and registering judicial experts.¹⁹ This foundation was created following the discussion on the penal legislation for experts. The Security and Justice ministry is behind its creation; several organisations also took part in it, such as the Public Prosecution Service, the Judiciary Council, the Netherlands Bar Association, the Police, the Netherlands Forensic Institute and the Netherlands Institute of Forensic Psychiatry and Psychology.²⁰

A code of conduct for judicial experts and for regulatory matters was established under the Judiciary Council's initiative and under the responsibility of the deliberation of the presidents of the courts, to create a

⁸ Wet deskundige in strafzaken, Stb. 2009, 33. Inwerkingtreding 1 januari 2010. More discussions in the articles by de G.C. Haverkate previously published in this magazine, nl. 'Het voorstel voor de Wet deskundige in strafzaken', EeR 2008, afl. 1, p. 17-26; 'De Wet deskundige in strafzaken [1]', EeR 2009, afl. 1, p. 3-12 en 'De Wet deskundige in strafzaken [2]', EeR 2009, afl. 5/6, p. 138-143 in relation to EeR 2010, afl. 1, p. 14-17.

⁹ www.rechtspraak.nl/Procedures/Landelijke-regelingen/Sector-civiel-recht/Documents/Leidraad_deskundigen_WT.pdf.

¹⁰ www.rechtspraak.nl/Procedures/Landelijke-regelingen/Bestuursrecht/Documents/Broch_LeidrMedischDesk.pdf.

¹¹ Download from www.nrgd.nl. See also P.C.T. van Dam (red.), *Handboek deskundigen voor de strafrechter*, Den Haag: Raad voor de rechtspraak 2009.

¹² *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579 (1993); *Gen. Elec. Co. v. Joiner*, 522 U.S. 136 (1997); *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137 (1999).

¹³ See Federal Rules of Evidence, Washington 2010, to be found in www.uscourts.gov/uscourts/rulesandpolicies/rules/2010%20rules/evidence.pdf.

¹⁴ See, among others, S. Haack, 'Trial and error: the Supreme Court's philosophy of science', *American Journal of Public Health* 2005, vol. 95 (Suppl 1), p. 66-73 and D. Bernstein, 'Expert witnesses, adversarial bias, and the (partial) failure of the Daubert revolution', *Iowa Law Review* 2008, vol. 93, p. 102-137.

¹⁵ HR 27 January 1998, NJ 1998/404

¹⁶ See on this issue Broeders, a.w., p. 73-75 and Trema 2009, afl. 6, p. 237-243.

¹⁷ H.F.M. Crombag, 'Rechtens en deskundigen', *NJB* 2000/33, p. 1659-1665.

¹⁸ See www.sdrnet.nl.

¹⁹ See www.lrgd.nl.

²⁰ See <http://nrgd.nl/nrgd/Historie/index.aspx>.

universal code of conduct for experts.²¹ These initiatives have also been carried out beyond the Netherlands and expert registers have been created. Their organisations have also drawn up codes of conduct.²²

More and more, if someone wants to work as an expert during procedures, they will have to become qualified for this purpose. This raises a few questions: what knowledge and what skills can be then demanded? To which norms should the future expert conform? And what kind of guarantee is provided by registering? What grounds does an expert register have to refuse a professional?²³ Are personal qualities examined when someone is registered? Paragraph 6 will have more details about this.

We can only celebrate the fact that organisation and content limits have been created, but one should clarify the content and organisation of the training and of the evaluations of the registers' operations.

5. The professional group of experts: quality requirements and code of conduct

The expert always makes his or her decision based on a certain professional competence. His professional group could be blamed for his or her deliberate or involuntary mistake. Therefore it is very important for professional organisation to be responsible for the good operation of the experts who come from their midst, by establishing a code of conduct with which they will have to comply and providing solid scientific directives for the way in which investigations have to be carried out and reports drawn. And it is also necessary to sanction those that make a mockery of the system.²⁴

In the United States particularly, but elsewhere too, one can find a "hired gun," a mercenary whose expertise can be bought.²⁵ This is a phenomenon which has been empirically proved with experts that work for damage and interest claims regarding neurologic birth injuries.²⁶ In such cases, there is a huge risk of presenting something under a scientific guise when it is not.²⁷

In the case of medical liability, the experts' role is described and examined in great detail, often negatively, especially when it comes to the « expert shopping » phenomenon, for example in cases of whiplash or brain injuries following vaginal birth.²⁸ But is the issue of the experts' *modus operandi* only an American problem? Do most of the experts in other Western countries, and more specifically in the Netherlands, behave with more scientific integrity?²⁹ And how does it happen that during certain civil procedures, the number of experts focusing on a single issue is higher than the number of fingers on two hands? Too little experimental research has been carried out on this subject.

The appeal of specifying experts' code of conduct has been previously mentioned. In them we find honesty, scientific integrity and a solid theoretical knowledge as well, obviously, as the practical experience of the problem on which the report focuses, the fact that one has to remain within one's subject knowledge area (see the saying about the cobbler again) and, finally, still be professionally active.³⁰

Working as an expert can be a profitable part-time job for a retired person, but in order to have a genuine view of the practice, the expert has to be dynamic, know the ins and outs of his profession, and be aware of the current scientific level in his field. For example, in the Netherlands, the Dutch Association for Obstetrics and Gynaecology established a code of conduct³¹ for its members. In it, one can find the rule that the person hired as an expert has to still be practicing. These rules underline the need for the expert to only be hired for something within the scope of his speciality. In reality, it seems that some members do not comply with the code of conduct. For example, a gynaecology professor worked as an expert under a less favourable angle during a criminal case focusing on the source of the traces of semen.³² He is now retired; however, he has worked as an expert in the medical liability field in an obstetrics case,³³ which is his speciality, but also, as an expert in a case about neurological damages following an operation on the neck.³⁴ This story illustrates once again – in the spirit of Goethe – that the only true master is the limits that one imposes on oneself. Giving experts a warning or

²¹ www.rechtspraak.nl/Procedures/Landelijke-regelingen/Algemeen/Documents/Gedragcode-voor-gerechtigdeskundigen-in-civielrechtelijke-en-bestaursrechtelijke-zaken.pdf.

²² See for example www.ukregisterofexpertwitnesses.co.uk/AboutExpertWitnesses.cfm.

²³ M. Bakker, 'Register getuigen-deskundigen in opspraak. Toetsing beperken we niet tot reputaties', *Adv.bl.* 2012, afl. 10/11, p. 12-13.

²⁴ A.D. Feld & W.D. Carey, 'Expert witness malfeasance: how should specialty societies respond?', *The American Journal of Gastroenterology* 2005, vol. 100(5), p. 991-995.

²⁵ J. Cooper & I.M. Neuhau, 'The "hired gun" effect: assessing the effect of pay, frequency of testifying, and credentials on the perception of expert testimony', *Law and Human Behavior* 2000, vol. 24(2), p. 149-171.

²⁶ A.S. Kesselheim & D.M. Studdert, 'Characteristics of physicians who frequently act as expert witnesses in neurologic birth injury litigation', *Obstetrics and Gynecology* 2006, vol. 108(2), p. 273-279.

²⁷ See J.F. Edens e.a. "Hired guns," "charlatans," and their "voodoo psychobabble": case law references to various forms of perceived bias among mental health expert witnesses', *Psychological Services* 2012, vol. 9(3), p. 259-271.

²⁸ See, among others, F.L. Cohen, 'The expert medical witness in legal perspective', *The Journal of Legal Medicine* 2004, vol. 25(2), p. 185-209; E. Amon, 'Expert witness testimony', *Clinics in Perinatology* 2007, vol. 34(3), p. 473-488 and J.W. Jones & L.B. McCullough, 'Medical expert witness litmus', *Journal of Vascular Surgery* 2012, vol. 56(2), p. 528-529.

²⁹ R.G. Beran, 'The role of the expert witness in the adversarial legal system', *Journal of Law and Medicine* 2009, vol. 17(1), p. 133-137.

³⁰ See for example B.S. Bal, 'The expert witness in medical malpractice litigation', *Clinical Orthopaedics and Related Research* 2009, vol. 467(2), p. 383-391.

³¹ <http://nvog-documenten.nl/richtlijn/doc/download.php?id=672>

³² In this case, it is supporting the towing theory in the Putten murder case. See among others Rb. Zutphen 9 October 2009, ECLI:NL:RBZUT:2009:BJ9770.

³³ Hof Arnhem 12 September 2006, ECLI:NL:GHARN:2006:AY9481.

³⁴ Rb. Dordrecht 24 December 2008, ECLI:NL:RBDOR:2008:BG8801.

applying sanctions, as it happened to this gynaecologist who did not respect the rules of his speciality, is highly uncommon in our country compared to the situation in the United States.³⁵ There are still only too few Dutch medical scientific associations that provide shape and content to the breadth of liability in their speciality by creating expert special committees.

6. Those who accept the mission: psychological and ethical aspects

We had discussed until now the contextual factors which, from the outside, could have an impact on the person of the expert. But they are still flesh and blood – legally natural persons – who must, in accordance with the request, give their expert opinion on an event, a situation, or a person. It therefore essential to separate the characteristics of their personality into cognitive and emotional factors: how do they carry out and manage their behaviour? Here is the question of the expert's virtue; it is not a common term in the legal jargon, nor even a common term in contemporary vocabulary. The word "virtue", in lexica, is described as the constant belief of doing good, promoting good outcomes, and abstaining from evil.

When one considers an expert as a person accepting a mission, according to article 7:401 BW, this person has the obligation of carrying out their mission while conforming to this norm. This rule also refers to virtuous behaviour, but it is a civil norm which requires concrete interpretation. There is clearly an ethical dimension to the intervention as an expert.³⁶ So the ethics of virtue could serve as a guide in the shape of self-reflections. A legitimate reflection could be: "Am I the best person to carry out an expertise in this legal case?" or: "Could there be any intertwined interests or a conflict of interests?" However, it is always essentially to manage the conclusions: "Am I certain of their veracity?"³⁷ These kinds of questions have also been asked in professional organisation directives previously, in paragraph 5.

While the inappropriate behaviour of experts is widely known and can lead to dramatic mistakes, very little research has been carried out on why these mistakes were made, whether on the individual or on the systematic psychological level. One could carry out an analysis on the experts' typology, their predisposition and the motivation (acceptable or not) behind their behaviour. Why, for example, would someone offer themselves up as a "hired gun"? Using a few legal examples, in only one of the systematic studies, the archetypes of experts making mistakes have been

drawn up. They are the madman, the hero (or heroine), the crook, or a combination of several types.³⁸ The aforementioned articles raises the question of whether the "accidents" due to the "experts" could have been avoided thanks to regulations, better training and better certification. Why and how does a gynaecologist end up in cases that are very far from his speciality? If an expert cannot put himself or herself into question, then one might wonder if behaviour rules and training will modify the situation. Why does not judge not check more often a given expert's skill, his closeness to retirement age (when one is judging his practice), etc. Procedural law leaves room for enough possibilities.

7. Conclusions

Expertise can be approached as a concept or as a practice. The conceptual question would be to know how the ideal expert should carry out his task. The practical questions have been asked previously, i.e., how would should ensure that an expert (belonging to a party or not) can contribute to the optimal solution of a legal case. The second approach is not only a *via positiva* but is also served by its opposite, the *via negativa*, the systematic cataloguing of what go wrong and what actually goes wrong. These mistakes show us the sticking points, the events that require deeper investigation. This is where the possibility of improvement can be found.

What kind of therapeutic measures would be effective after these reflections? More rules to follow, better certification, more responsibility for the professional organisations, more frequent sanctions against inexperienced experts and their abusive conduct? Formal rules and certification tend towards disciplinary rather than fundamental aspects. Professional organisations will have to look at content more. But the weakest link is, and remains, the human being, the person of the expert. They are the one shaping the expertise, from start to finish. The judges, the certifying authorities, and the professional organisations all carry the responsibility of the context within which the expert moves. There is not enough commitment. Judges and lawyers, as well as colleagues and professional associations should be much more critical of those who apply to be experts. The expert is, and maybe remains, the weakest link. For intelligence stops where vanity starts.³⁹

³⁵ A.S. Kesselheim & D.M. Studdert, Professional oversight of physician expert witnesses: an analysis of complaints to the Professional Conduct Committee of the American Association of Neurological Surgeons, 1992-2006', *Annals of Surgery* 2009, vol. 249(1), p. 168-172.

³⁶ J. Murphy, 'Expert witnesses at trial: where are the ethics?', *Geo. J. Legal Ethics* 2000, vol. 14, p. 217-239 and J.B. Kadane, 'Ethical issues in being an expert witness', *Law, Probability and Risk* 2005, vol. 4(1-2), p. 21-23.

³⁷ P. Lipton, 'What good is an explanation', in: J. Cornwell (red.), *Explanations: Styles of explanation in science*, Oxford: Oxford University Press 2004, p. 1-24.

³⁸ J.A.J. La Llave & T.T.G. Gutheil, 'Expert witness and Jungian archetypes', *International Journal of Law and Psychiatry* 2012, vol. 35(5-6), p. 456-463.

³⁹ An evaluation borrowed from the Austrian author Marie von Ebner-Eschenbach (1830-1916): 'Wo die Eitelkeit anfängt, hört der Verstand auf.'