

Forensic linguistics in German law enforcement

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Abstract. *In Germany, forensic linguistics is regularly made use of for law enforcement purposes. Since the 1980s, it is part of a federal forensic science institute and has developed with other, more widely-known forensic sciences side by side. Its contributions are fully accepted by the German police and the courts.*

To illustrate the processes surrounding expert evidence in German jurisprudence, the forensic linguistic expert work on a homicide case will be outlined at its various stages, i.e. from investigation up to the confirmation of the judgement after an appeal to the Federal Court of Justice. Tracing the course of the case, general provisions (legal or otherwise) concerning each stage of law enforcement are outlined and it will be described how they apply to forensic linguistics. Special attention is paid to the role of the expert, the expert's rights and responsibilities, and what can be learned from the feedback of court proceedings.

Keywords: *Forensic linguistics, linguistic evidence, expert testimony, forensic sciences, inquisitorial judicial system.*

Resumo. *Na Alemanha, a linguística forense é utilizada regularmente para fins de investigação policial. Desde os anos 1980, encontra-se integrada num instituto de ciências forenses federal, tendo-se desenvolvido ao lado de outras ciências forenses mais conhecidas. Os seus contributos são totalmente aceites pela polícia e pelos tribunais alemães.*

Para ilustrar os processos em torno da perícia na jurisprudência alemã, descreve-se o trabalho pericial de linguística forense num caso de homicídio nas suas várias fases, i.e. desde a fase de investigação até à confirmação do julgamento após recurso para o Tribunal de Justiça Federal. Descrevendo-se o curso do caso, identificam-se as provisões gerais (legais ou outras) relativas a cada fase do processo, e explica-se de que modo elas são aplicáveis à linguística forense, prestando-se especial atenção ao papel do/a perito/a, aos direitos e às responsabilidades do/a perito/a e às lições que podemos retirar do feedback da decisão judicial.

Palavras-chave: *Linguística forense, prova linguística, testemunho pericial, ciências forenses, sistema judicial inquisitorial.*

Introduction: The role of an expert in German criminal proceedings

Criminal proceedings in Germany are inquisitorial in nature. This effectively means that all information that contributes to the legal decision-finding process is gathered by state bodies. Hearings of criminal law are presided by a judge, who is vested with the authority to independently evaluate the weight of evidence brought forward within the context of the case. The procedures for legal proceedings and, thus, the legal provisions for experts are laid down in the German Code of Criminal Procedure (*Strafprozessordnung*, StPO). There are more elaborate provisions on expert work in the Code of Civil Procedures (*Zivilprozessordnung*, ZPO) with some of them being applied also in criminal law if not stated otherwise¹.

Legally speaking, the expert is an individual or a public authority with expertise in a specific field. Expert opinions are classified as one of five different types of evidence, the remaining four being witness statements (StPO sections 48-71), judicial inspection results (StPO section 86), documents (StPO section 249), and statements of the accused (StPO section 136 and 243). All evidence is subject to the so-called “principle of judges’ free evaluation of evidence” (StPO section 261), which means that, with only a few exceptions, the admission and weighting of evidence lies completely within the discretion of the court based on the entire hearing.

The task of an expert is to impart general knowledge and experience in a specific field of expertise, to draw conclusions and to render opinion. As part of this general goal, his/her task also includes the presentation of causal relationships and facts by means of findings based on expert knowledge. Experts can be appointed by the court, but they can also be requested during the investigation stage of a case. For this purpose, they are usually chosen by the police, whose actions are monitored by the competent prosecution office. The role of the expert can be described with regard to rights and obligations as well as in relation to other participants in the legal proceedings. It has much in common with the one of witnesses; in fact, the provisions concerning witnesses are also applied to experts if not explicitly specified differently in the Code of Criminal Procedure. For example, an expert may refuse to render an opinion for just the same reasons for which a witness may refuse to testify (StPO section 76). But the two differ in one important aspect: the expert could be replaced by another expert; however, this does not hold true for witnesses due to their unique perception of the immediate circumstances of the case. It also follows that an expert can be leaned on by litigants, which is not possible for witnesses because of the aforementioned importance of perception of immediate circumstances. The role of an expert also exhibits some similarities to judges. First and foremost, the expert is obliged to the same complete impartiality as the court itself. If there is reason to doubt impartiality, an expert can be challenged on grounds of bias. For this, the same causes of partiality apply as for the court, or as the German Code of Criminal Procedure puts it, “An expert may be challenged for the same reasons that a judge may be challenged.” (StPO section 74).

In different terminology, the role of an expert is often described as an “assistant to the court” for all cases where the expertise of a judge is not sufficient for the matter at hand. However, this notion is somewhat problematic. Ulrich (2007: 159) even speaks of an inherent and characteristic field of tension between judge and expert caused by the fact that an expert is by no means called upon to render opinion to the *legal* matter at hand, not even indirectly. The designation “assistant to the court” increases the risk of

crossing the line. Instead, the expert is required to enable the judge to make his/her legal decisions by providing the necessary expertise without addressing the ultimate legal question. The court is under the obligation to evaluate the expert's report; and in order for this task to be fulfilled, the expert has to not just provide professional conclusions but also to specify what findings the conclusions are based on and which considerations have led the expert to his/her conclusions. There are various categorisation models for experts with different legal implications each. Experts can be distinguished according to how the expert work is carried out, e.g. full-time vs. half-time or on a freelance vs. commercial basis². Closer to the professional activity is a differentiation of experts being officially acknowledged, publicly appointed, certified, acknowledged by an expert association and self-appointed (Ulrich 2007: 27-47). For these different types of experts, minimum regulations exist. It is important to note that the term "expert" is not legally defined with regard to the extent of expertise that a person must have in order to act as an expert, nor is it defined with respect to how the expertise has to be acquired. In fact, the term "expert" is not a registered term at all – that is the reason that there are self-appointed experts. This peculiarity places complete responsibility on the court to ensure that the claimed special expertise and experience actually exist.

In the following paragraphs, the role of the expert is further elaborated using a case study from the field of forensic linguistics in its narrow sense, referring to authorship analyses. The case example was chosen to illustrate the different stages of law enforcement from investigation up to the confirmation of the judgement after an appeal to the Federal Court of Justice, the highest appellate court in Germany. Each section comprises an account of the relevant circumstances of the case chosen for illustration, accompanied by some general remarks about that stage of law enforcement, before the details concerning forensic linguistics are outlined.

Forensic linguistics: The situation in Germany

Forensic linguistics is a multi-faceted field concerned with the interface between linguistics and law. In a narrow sense, forensic linguistics can refer to the analyses of texts with respect to issues of authorship³. The essence of the field in the narrow sense is the science of linguistics which is combined with forensic sciences to serve law enforcement purposes. The situation of forensic linguistics in Germany needs to be discussed both with regard to its application and with respect to its education. Unfortunately, both spheres have developed quite differently in the last 10 to 15 years (Ehrhardt 2013: 65f).

Germany is one of the few countries which have forensic linguistics incorporated in a federal forensic science institute. In the 1980s, the first forensic linguistic analyses were conducted at the Federal Criminal Police Office (Bundeskriminalamt, BKA). The subsequent evaluation of forensic linguistics as a forensic science acknowledged its value to positively contributing to law enforcement matters and thus led to the foundation of a specialist division in 1989. Since then, forensic linguistics at the BKA has developed with other, more widely-known forensic sciences side by side, e.g. by professionalising its workflow and the basic principles of forensic expert work, by establishing a text-based identification service and by developing standards in methodology for the analysis of German incriminating texts. This development has decisively shaped the German perception of what forensic linguistics is and what types of analyses it offers. Nowadays, its contributions are fully accepted by both the police and the courts. However, this only applies to forensic linguistics in the narrow sense, as authorship

analyses. Requests for other forms of linguistic support, e.g. the training of police officers for covert online investigations and the tracing of disguised identities (cf. Grant and MacLeod 2020), are rarely commissioned, and there is insufficient competence in other areas of forensic linguistics within the police.

Apart from federal and state forensic science institutes, forensic linguistic consultancy is exercised by only a few experts. Among those, some work in academia with a research focus on linguistics while others do not necessarily have a linguistics degree but still offer forensic linguistic expertise. The German Main Chamber of Commerce and Industry is a German organisation with a focus on civil law cases. Primarily for this purpose, it runs a database of officially appointed and sworn experts (cf. DIHK e.V. 2021). If it acknowledges the demand of experts for a specialist field (with respect to both civil and criminal cases), experts may commission a request to become listed there. However, consultants with forensic linguistics expertise are generally not listed there – regardless of the fact that courts and public prosecutors' offices should, in accordance with the relevant procedural regulations, predominantly use publicly appointed and sworn experts. Other persons may only be appointed if required by special circumstances (StPO section 73). To the best of the author's knowledge, it does not seem to present an advantage over other experts to acquire such an official appointment, which would include regulations concerning professional and personal qualifications as well as proof of appropriate quality-assuring measures for any consultancy work.

At universities, forensic linguistics – in its broad sense and not just the narrow, authorship-related sense – is very popular among students, presumably because it offers the application of a traditional science to a socially beneficial purpose. To meet the students' demand, the subject is widely taught at a rather basic level, especially in introductory courses. However, there are only a few scientists whose academic work focuses on forensic linguistics. For more than a decade now, there has not been a professorship in forensic linguistics at a German university. Consequently, the teaching of forensic linguistics with an emphasis on analysing German texts falls far short of an advanced level, and students have to turn elsewhere to get their desired education. This situation is now about to improve, as one German university has recently established a professorship in digital forensic linguistics attached to a linguistics department (as opposed to technical departments).

The situation of forensic linguistics in Germany is not satisfactory from a practitioner's perspective because it lacks both advanced training opportunities and professional organisations which would set at least minimum standards in training and methodology for the analysis of German texts. As a result, firstly, little is known about the methods and quality standards of experts working in the private sector. Secondly, there is no agreement on the appropriate use of linguistic methodology; and thirdly, further development of the methods cannot be advanced to the extent that would be necessary. For those who need forensic linguistic expertise, this means that they face severe difficulties to find out where the necessary expertise can be obtained and to assess the requested expert work⁴. This is how the current situation of forensic linguistics in Germany may have arisen – a situation in which inadequately trained experts can successfully offer forensic linguistic expertise, potentially influencing the image of the field among those who need its services.

Case study: Forensic linguistics in German law enforcement

In March 2012, a 24-year-old mother of a baby girl went missing. Soon afterwards, eleven text messages were sent from her mobile phone telling the addressees that she could not bear the current situation any longer and needed distance. Ten messages were sent to the missing woman's mother, one to her husband. When the husband reported his wife missing two months later, investigations started in a seeming case of a missing person. Since there were no other signs of life apart from the text messages, and furthermore no indications of suicide or kidnapping, the police quickly assumed it was a homicide case, although a body could not be found. In the course of events, the husband became the focus of the investigations. Investigations revealed a precarious financial situation of the couple, which was aggravated mainly by the fact that the husband did not fulfil his obligations and repeatedly lied to both his wife and official bodies. During a house search, a blood trace from his wife was found in the basement of the house they shared. In January 2014, the husband was taken into custody. Shortly before, the responsible investigative authority turned to the forensic science institute of the BKA and requested a comparative linguistic analysis with the investigative aim to learn if the husband had written the text messages sent after the young mother went missing.

Requesting a forensic linguistic analysis

As the forensic linguistics department of the BKA is part of a federal institute, parties commissioning forensic requests are restricted to security and law enforcement authorities, i.e. state or federal police authorities on behalf of the public prosecution offices in charge, including the customs investigation bureau, and the courts. Private individuals or lawyers who want to request a forensic examination on behalf of their clients are not admissible requestors.

According to the German Code of Criminal Procedure, general investigatory powers lie with the public prosecution office. It is entitled to request information from all the authorities and to make investigations of any kind, either itself or through the police authorities and police officers (StPO section 161). In the description given above, the proceedings are still in this investigation phase, which is supervised by the public prosecutor, and therefore the responsible police authority commissions the request for linguistic analysis of the relevant text messages. The Code of Criminal Procedure also clearly states that the public prosecution office shall ascertain both incriminating and exonerating circumstances (StPO section 160). For reasons of objectivity, investigation and forensics are organisationally separated. The management of the BKA has committed itself to creating the necessary framework conditions for the forensic science institute to perform its tasks free of influences and conflicts of interest. Within the forensic science institute of the BKA, the impartiality of forensic expert work is ensured by maintaining a quality management system and by accrediting the forensic methods. There are standard procedures for requests, the handling of objects for forensic analysis, the appropriate documentation of analyses and many more – all of them are intended to secure the whole forensic process “from crime scene to the courtroom” as it is internally specified.

The department of forensic linguistics is subject to the same regulations and provisions as any other forensic science department at the institute. Thus, the request for linguistic analysis by the responsible police authority corresponds to the standard procedures of commissioning requests. With respect to forensic linguistics, it is up to the

requesting party how much detail about the case is provided. All linguistic methods are designed to require only a minimum of case-related information. If contacted prior to the request for analysis, the linguistics department explicitly discourages any additional information. However, in the presented case and without prior contact, the police gave an unusually detailed account of what happened to make their investigatory purpose clear. For illustration, this is a quote of the part where the actual request is formulated:⁵

Since [March 2012], there has been no sign of life from [name], who was 24 years old at the time of the crime. She was reported missing by her husband on [May 2012]. Meanwhile, the husband is suspected to have killed his wife on [March 2012] and to have disposed of the body. All investigations are still being carried out covertly.

Today, text messages made available by the missing person's mother will be provided. We ask you to conduct a text comparison between text messages before and after [date of disappearance] as well as to describe how the writing style has changed. Additionally, 18 text messages sent after [date of disappearance] shall be examined to determine if they are written by the same person even when they were sent from different mobiles. (translated quote from the request for forensic analysis)⁶.

The investigators' assumption concerning the authorship of the relevant text messages is quite obvious. But regardless of whether a request for analysis has been commissioned for investigative or evidential purposes, the linguistic analysis is principally designed to serve evidential purposes. For this reason, the wording of the original request is transformed into a forensically appropriate, i.e. unbiased, task. In the case example, the comparative analysis has to be split up into two 1:1 comparisons in which the linguistic comparison of authentic text messages by the missing person with the questioned text messages is conducted independently of the second comparison of authentic text messages by the missing person's husband and the questioned text messages in order to avoid bias.

Conducting and reporting a forensic linguistic analysis

It comes with an accreditation to have standard operation procedures which specify how a forensic task is tackled in an appropriate way and by which method. At the forensic science institute of the BKA, a comparative linguistic analysis is accredited according to the standard ISO 17020. This standard relates to so-called inspection procedures that do not only refer to analytical processes of examinations but also the evaluation of findings. Inspections are examinations of diverse items, e.g. text samples, and the subsequent assessments of their conformity with requirements. Any kind of comparative task is in fact an inspection. In the terminology of the standard, the "exercise of professional judgement" is the crucial difference to the application of the norm ISO 17025, which is also often used to accredit forensic methods. (In contrast to ISO 17020, ISO 17025 states requirements for the competence of testing and calibration laboratories and, thus, is less explicit about evaluative reporting.) As rigid as the term "standard operation procedure" may appear, it is not intended to fix the methodology to a single, pre-defined option. Instead, it is designed to ensure that a scientific method is chosen and applied in such a way that the procedure produces the intended and best possible results for the task at hand. Therefore, a sufficient degree of methodological flexibility must be included in any operating procedure and, simultaneously, arbitrariness in the choice of methodology shall be prevented.

The starting point of each text comparison is a critical assessment of the texts to be compared. This assessment is designed to reveal all aspects which might have an influence on the conduction or the result of a linguistic comparison task, e.g., insufficient amount of text samples, incomplete transmission of text files, and (mis-)matching conditions of text production which affect the comparability of the texts at hand (Ehrhardt 2021: paragraphs 18-23).

Following the critical assessment of the text samples which states the conditions under which the text comparison is carried out, the linguistic features of each text are analysed. The forensic linguistics department at the BKA has developed a method for the systematic collection of findings to ensure a comprehensive, i.e. possibly complete, description of a German text by its features (Baldauf 1999, Dern 2009: 69-70, Ehrhardt 2018: 182-184, Ehrhardt 2021: paragraphs 26-30). In a combination of analysing stylistic features as well as errors and mistakes, a structured feature collection is aimed at without considering each feature's evidential value for a specific comparative task at this stage of the analysis. The linguistic features are described with respect to their quantity, quality, consistency or variation as well as possible equivalents to the forms chosen by the author (i.e. forms that could have, but have not been used by the author), and eventually communicative constraints that might have prevailed. This analysis is supported by methods from corpus linguistics and statistics in accordance with current research findings. Fully automated processes are not used.⁷

After the extraction of linguistic features, the actual comparison is carried out by evaluating the linguistic features with respect to their discriminating power and evidential value. For this, the well-known concepts of (inter-/intra-individual) variation as well as similarity and typicality are applied, and wherever possible the necessary population-level data for specific features are estimated using relevant text corpora (Ehrhardt 2018: 187-189). The result of a linguistic comparative analysis is presented in the form of a verbal statement from a 9-level scale of statements. The statement reflects the expert's assessment of the degree of support for author identity or non-identity, e.g. "The forensic findings provide weak / moderate / strong / very strong support for the first proposition rather than the alternative." (cf. ENFSI 2016: 17). This assessment is informed by similarities and discrepancies in the individual linguistic features of the authors being compared.⁸

The comparative analysis is documented in the expert report. While, for example, the Criminal Procedure Rules for England and Wales give provisions for the content of an expert report (section 19.4), there are no comparable regulations in Germany. Ultimately, it is the responsibility of each expert to design the expert report in such a way that it meets the requirements in a legal context. The guiding principle of these considerations is to be mindful of the purpose for the court and to clarify the impartiality of the requested analysis. The latter is of particular importance, since in an inquisitorial system the forensic analysis is usually commissioned by a state body, but is nonetheless to be carried out without the (state or otherwise) expert bonding with the side commissioning the request. The lack of minimum requirements for expert reports led and still leads to a variety of different design options, which is why the content and structure of expert reports continues to be a required point of discussion in German forensic linguistics. Of course, larger forensic institutes take up this topic intensively, draw up their

own specifications and ensure that they are in line with other specifications, especially those of an accreditation.

In general, the report of a comparative analysis is evaluative in nature and must enable the requesting party to fully understand what kind of analysis has been conducted and under which conditions it has been carried out. Most importantly, the findings should be presented comprehensively in order to make explicit how the expert was able to draw the conclusions presented. Thus, the report is supposed to be comprehensible both in its scientific content – particularly to those without linguistic training – and in its line of argumentation. Quality assurance measures should safeguard the work and the documentation in the expert report. For this reason, each expert report of the BKA forensic linguistics department is peer-reviewed by a second expert in the field. Furthermore, reports may be written in a way that any potential objections by the legal parties are anticipated as much as possible.

In the case of the missing woman, the critical inspection of the text material revealed that all submitted texts were text messages, which means that the text comparability is not influenced by mismatched conditions of text production. The questioned text messages added up to 446 tokens, and the authentic messages of the missing person contained 2,636 tokens. However, the authentic text messages of the missing person's husband consisted of just 159 tokens. This is below the threshold of 200 tokens, which is considered to be the minimum amount of text material for a linguistic comparison to be conducted comprehensively without limiting the evaluation of findings. Consequently, the comparative analysis of messages from the husband with the questioned messages could not be carried out. At that time, further text messages by the husband could not be obtained, so this part of the linguistic comparison was postponed.

The analysis of the missing person's text messages revealed a constellation of linguistic features, with most of them commonly used by German writers of text messages. However, rather salient features were found concerning the rate of typos, mistakes and morphological/syntactical deviations (exceptionally low rate), the use of onomatopoeia (frequent and creative use), punctuation marks (close to standard use although text messages usually display a reduced usage), and emoticons (frequent use in nearly every message). In summary, the authentic text messages of the missing person show a standard use of written German which is deliberately interspersed with features of colloquial language. In this respect, the messages do not correspond to what is particularly typical in text messages, i.e. less standard usage is the more frequently found pattern.

In contrast, the questioned text messages were characterised by a relatively high rate of deviations from standard use whose origin seemed to be a lack of knowledge about the standard forms rather than just having resulted from typing disfluencies, although these were evident in considerable amount as well. Furthermore, the questioned messages did not contain any emoticons or punctuation marks apart from full-stops and question marks. In this regard, they corresponded rather well with other text messages of that time. In the overall view of the linguistic findings, the questioned text messages revealed a different command of written German than the text messages of the missing person, with a number of salient features that did not have counterparts in the comparison material. Therefore, the analysis resulted in a moderate support statement for the hypothesis that, in view of the linguistic features, the authentic messages by the missing person were written by a different author than the questioned text messages.

By the end of 2015, the suspicion against the woman's husband was further substantiated. Her body had still not been found, but in the meantime the SIM card of her mobile phone was seized in the suspect's vehicle. In November 2015, the husband was accused of manslaughter and the main hearing commenced. Out of the court proceedings, a further request for a linguistic comparison was filed. For this purpose, instant messages that the accused had written to his new girlfriend were used as comparison material. In the earlier request, text messages of the accused had been too scarce to compare them to the questioned text messages. The renewed request included a sufficient amount of text material (ca. 4000 tokens), but these text samples were produced under mismatched conditions as during the time of the investigation the accused switched from classical text messaging with the 9-key pad of a mobile phone to an instant-messaging app operated with a computer keyboard.

The linguistic analysis of the defendant's messages showed many similarities to the questioned material in features with a rather low discriminating power because they are commonly used by writers of both text messages and instant messages, e.g. typos, spacing mistakes, incorrect use of upper and lower case, reduced punctuation and use of colloquialisms (instead of an orientation towards standard forms of written German). However, there were also a few features which are more distinctive such as a systematic deviation of spelling norms in exactly the same words as in the questioned material, which also proved to be extremely rare in other relevant corpora. The text messages of the accused also displayed a similar linguistic competence as the questioned material. Differences between the two text-sample groups could only be revealed for features in which writers of German usually show a high tendency for variation (and, correspondingly, uncertainty) like the differentiation of the graphemes β , s and ss . Some features of the defendant's text samples could not be properly evaluated because of the mismatched conditions of text production. Taking together all the linguistic findings, the conclusion to this text comparison was a weak-support statement for the hypothesis that, in view of the linguistic features, the authentic messages by the missing person's husband were written by the same author as the questioned text messages.

Giving testimony as an expert in court

After the linguistic expert reports were made known to the court, the presiding judge decided that the appointed expert should give testimony in court.

In Germany, any main hearing under criminal law is divided into nine different phases (cf. StPO sections 35a, 243-260): The main hearing commences with the case being called up (1) and the presiding judge's determination whether defendant and defence counsel are present, followed by a questioning of the defendant on his personal situation, especially on his/her capability to plead (2). Afterwards, the public prosecutor is supposed to read out the charges brought against the defendant and submit the legal assessment on which the decision to open the main hearing was based (3). The defendant is then informed that he/she may choose to respond to the charges or not to make any statement on the charges (4). If the defendant decides to respond to the charges he/she will be heard. Afterwards, evidence will be taken (5). The taking of evidence is the essence of any main hearing and can be significantly influenced by both prosecution and defence, for example by filing motions for the admission of evidence or strategically placed questions to witnesses and experts. Eventually, the taking of evidence is the means by which the court exercises its obligation for inquiring into all facts of proof

relevant for deciding about the matter at hand. With the taking of evidence terminated, the public prosecutor gives the closing speech and usually poses an assessment of punishment, which is then followed by the closing speech of the defence counsel (6). The public prosecutor has the right to reply, but the defendant has the right to have the last word. Afterwards, the court withdraws for its deliberations, which take place in private. This is in accordance with the principle that the court shall decide on the results of the taking of evidence at its discretion and conviction based on the entire content of the hearing (7). The main hearing closes with the delivery of judgement (8). The reasons for the judgement will be given orally at first, but there is a time limit for the written form of the judgement, including explicit exposition of the reasons behind the judgement, of about five weeks with provisions for extending the time limit relative to the duration of the main hearing. The main hearing closes with the judge's instructions about the right to appeal (9).

As part of the taking of evidence, the hearing of experts in court also follows a fixed procedure (cf. Ulrich 2007: 345-355). At the beginning, the expert receives a briefing for legal consequences before he/she is questioned about his/her identity, age, profession, address, (lack of) relationship to the defendant, and qualifications. Subsequently, the expert is questioned regarding the case, which usually starts with the judge prompting the presentation of the expert report(s). Reports are often given to the court and the other parties prior to the trial. From experience, it is recommendable to prepare the presentation of the findings in a way that is close to the reports' structure and to present them in a way that is suitable for easily following the scientific argumentation, since the principle of orality is decisive in the main hearing. Elaborate presentation techniques are not necessarily the means of choice for this end. The court as well as the other legal parties involved have the right to question the expert whereby the allocation of turns is set: It starts with the presiding judge and lay assessors, then moving to the public prosecution, the defence counsel, the defendant and other experts appointed by the court, e.g. forensic psychiatrists. The examination of an expert usually serves the purpose of inquiring about the robustness of the expert's findings by the court, rather than challenging the expert's report on any conceivable grounds by the defence counsel. After the expert has rendered his/her opinion in court, the judge decides whether to place the expert under the oath that he/she has rendered his/her opinion impartially and to the best of his/her knowledge and belief. With or without oath, the expert is then released.

In principle, experts have the right to put forward questions to the defendant if the information sought is relevant for the forensic analysis: "(1) The expert may, at his request, be given further details in order to be able to prepare his opinion by means of examining witnesses or the accused. (2) He may, for the same purpose, be permitted to inspect the file, to be present at the examination of witnesses or of the accused, and to address questions to them directly." (StPO section 80).⁹ But this right is rarely exercised in specialist fields such as forensic linguistics. An expert opinion can also be countered by another expert opinion on the same subject. To achieve this, a litigant must file a motion for the admission of evidence by a further expert, e.g. by proving the first expert report to be seriously flawed, and the judge granting this motion. Defence motions for evidence are usually examined very carefully by judges and they are often granted, so as not to give the opposing side grounds for an appeal on points of law (or on points of fact and law depending on the responsible jurisdiction). It is a well-known tactical move

by the defence side to file motions for evidence at the last possible chance to do so, thus creating a considerable time pressure on the main hearing and the expert, respectively.

Concerning the actual questioning of an expert, there are only a few topics that are explicitly inadmissible. They refer to questions and challenges on grounds that bear no relation to the subject matter at hand, as well as those that go beyond the stated subject matter. In addition, leading questions are inadmissible as well. In practice, an expert may consider a question inadmissible, but it would require an appeal to the judge to decide about the status of the question; and this is quite a drastic action, especially as the expert cannot be sure that the judge shares his/her views. Rather, the expert should answer the question posed in a way that makes its disputable status clear, for example by referring to only what is well within the expert's responsibility and, thus, leaving the answer incomplete, which in turn would challenge the defence side either to linger on the (potentially inadmissible) topic or to drop it. Instead of insisting on his/her rights, an expert can always smooth out difficult situations by avoiding a direct exchange of arguments with opponents. This can be achieved, for example, by persistently maintaining the direction of communication with the judge and – probably most important of all – by remaining calm and patient.

From the defence counsel's point of view, the examination of an expert serves the purpose to probe for the quality of the expert's work and his/her impartiality, which also involves whether the expert has exceeded the limits of his or her authority (Tsam-bikakis 2014: 2768). The answers given could later be used to challenge the expert on the ground of suspected bias. For this aim, topics typically addressed involve the expert's reference to the facts of the case and evidentiary facts, i.e. surrounding information (including how the request was filed, if the request was clearly outlined and the expert acted accordingly), the reliability of findings, the expert's expertise, training and experience as well as his/her relationship to the defendant. To be questioned on these topics often leaves the expert with the impression of having been unjustifiably challenged or provoked, but they are well within the defence's responsibility. It is the defence side's dilemma that challenging an expert in his/her field of expertise is often not realistically possible because of the existing knowledge gap; that is why they are left with challenges on grounds of basic quality principles and bias. Regarding this aspect of expert testimonies, the difference to adversarial judicial systems may become most pronounced, as the possibility of challenging an expert by another expert of the same field seems to be more readily available there.

Turning back to the case study, the responsible expert has given testimony in court for well over two hours. After the formal briefing and the questioning about personal data as outlined above, the judge prompted the presentation of the first expert report. This presentation included a shortened description of the initial request, how it had been understood and transformed to the task of a forensic analysis, methodological explanations, and finally the linguistic findings for the analysed text samples as well as the evaluation of those findings. The presentation of the second report was prompted, and the expert gave testimony about the second comparative analysis similar to the descriptions of the report.

Following the presentation of the reports, the presiding judge started the actual questioning by asking for further elaboration on the moderate-support statement that made up the first report's conclusion. To be more precise, the questions were: Which state-

ments are most often the result of a linguistic comparative analysis? What are the reasons for expressing the conclusions in the proposed way? What could have changed the moderate-support statement into a weak-support statement or a strong-support statement? With the answers given, the judge decided not to ask any follow-up questions, instead he moved on to a judicial inspection of the text samples. For this, all parties to the trial had to gather at a desk in front of the judge's table, where the expert was asked to lay out copies of the text samples. The judge, the public prosecutor and the defence counsel asked questions about selected linguistic features they discovered in the samples, with the expert explaining the features linguistically and relating their evidential value in connection with other findings of the analysis. While the previously given presentation of the expert reports did not elicit any questions about individual features or their evaluation, the "lay assessment" of linguistic features now had to be actively reconciled with the working standards of a forensic scientist. In doing so, it was particularly important to correct the personal belief of the legal parties involved that they, as native speakers, could also make assessments themselves, and to explain the scientific methodology of forensic linguistics. Feedback on whether these efforts were successful could only have been received by looking at the follow-up questions, which, however, were not asked.

After the judicial inspection of the text samples, the common seating order was resumed and the judge carried on to put questions to the expert, e.g. whether linguistic features are analysed automatically by using specialist software or rather manually by the analyst, how technical circumstances might have had an influence on the text samples, especially algorithms for auto-completion and if there is research on these functionalities.

The right to put questions to the expert was passed on to the public prosecutor, who declined and then to the defence counsel, who raised the issue of using statistics for the presentation of findings and the evaluation of evidence. In this regard, some discussion sprang up about how to get population-level data for individual linguistic features in order to determine their typicality. The defence lawyer gave the impression that what he had in mind was a presentation of findings by means of a percentage value rather than an elaborate statistical evaluation. Descriptive statistics had of course been used in the analysis, but caution is required not to convey the impression of objectivity or ground truth that, in fact, cannot be obtained for many linguistic features. The defence counsel then switched the topic to linguistic manipulation and stated that this might be the reason why the text samples of the defendant were similar in some features to the questioned text messages. The defence counsel asked for quite a detailed account on why linguistic manipulation could be ruled out for the questioned text samples. At one point, he commented on his repeated uptake of the topic: "I don't wish to cast doubt upon your results. I just want to understand them." Without clinging naively to the literal meaning of his comment, it corresponds nevertheless to the impression left by the behaviour of all parties to the trial. More or less, the examination of the expert resembled a constructive information-seeking process, whose main aim was to establish the evidential value of linguistic findings and the conclusions drawn from them. Before the examination was concluded, the judge resumed his right to put questions, and he asked for the research activities in forensic linguistics in general and the expert's research in particular, how the field is represented in academic associations and otherwise, how the expert's obligation

to continue education and enhance her skills was fulfilled as well as what the expert's practical experiences are. After making sure that none of the parties to the trial had any more questions to ask, the judge released the expert without administering her to an oath.

Both the court and the defence counsel showed well-grounded knowledge of forensic sciences, although not of forensic linguistics. They did not challenge forensic linguistics at all, and they admitted to be less familiar with forensic linguistics than with other forensic sciences. Therefore, if the account of expert testimony described above gives the impression that it was a comparatively smooth and constructive matter, then this corresponds to the experience of the author in most cases. However, experts working in the private sector often have quite different experiences. Being part of a forensic science institute, and especially being just one forensic science among many there, seems to contribute very much to the acceptance of forensic linguistics. When giving testimony, it is of course the *linguistic* expertise that is decisive, but for all aspects concerning the operation of law enforcement (requests, framework conditions for examinations, evaluation of evidence, quality management), the experience as a *forensic* expert is equally important. These are the aspects that the defence side may challenge the expert on. For this reason, it may prove beneficial to draw more from other forensic sciences rather than relying solely on the application of linguistics in a forensic context. Ultimately, the question is whether forensic linguistics is merely an application of linguistics or whether it is an interdisciplinary science that draws from both linguistics and forensic science to contribute to law enforcement.

Outcome of the case

The main trial lasted nine months and turned out to be difficult due to the circumstantial evidence. The defendant did not comment on the charges brought against him for the most part of the hearing, only with his last words he proclaimed his innocence; and there was still no evidence of the body. In March 2016, the court sentenced the defendant to 12 years in prison for manslaughter.

For reasons of quality assurance, the BKA's forensic linguistics department always seeks permission to get access to the judgement, including the reasoning. The judgement was written down on more than 200 pages, with four of them referring to the expert testimony and its evaluation. In fact, the testimony was described and sporadically complemented by evaluative statements. Special reference was only made to the expert's explanations being "detailed, clear and illustrated with numerous examples". However, the written judgement revealed at various points that the expert's statements made in court had been misunderstood (or recorded incorrectly in the minutes of the court). The most striking of these misunderstandings is the following record:

In doing so, the expert emphasised that, on the usually used scale, this support statement was the second above the non-decisive statement (non liquet), while at the same time stating that the support statements exceeding moderate support were not usually awarded by experts, as these relate to comparative tasks in which it was obvious even to the layperson that the authors were not identical and that requests for a forensic analysis were superfluous for such texts. (translated quote from the written judgement)

This account is simply false and, of course, nothing like this had ever been mentioned. In retrospect, it does not even occur to the expert which statements could have led to this misunderstanding.

A further interesting point to be learned from the written judgement is how the expert testimony is connected to other evidence, especially the witness statement by the victim's mother. Apparently, she had doubts about the authorship of the text messages sent to her after her daughter went missing:

The expert statements also confirm the impression gained by the joint plaintiff. She vividly described that when she read the short messages she had received, she noticed a change in both spelling and writing style, which ultimately led her to believe that the short messages did not come from [her daughter]. (translated quote from the judgement)

The different types of evidence – expert testimony and witness testimony – are not weighted.

The judgement's section on the expert testimony ends with the court's conclusion: "The court agrees with the convincing explanations of the expert, which were comprehensible and conclusive." (quote from the judgement).

Following the judgement, the defence side lodged an appeal. The case presented was heard by a regional court (*Landgericht*), which has jurisdiction in the more serious criminal cases as opposed to local courts (*Amtsgerichte*, which are the lowest German courts) and higher regional courts (*Oberlandesgerichte*, which have jurisdiction for offences against the security of the state). The defence has therefore appealed on points of law at the highest appellate court in Germany, the Federal Court of Justice (*Bundesgerichtshof*). Unfortunately, the reasons for the appeal are not known to the author. The Federal Court of Justice confirmed the verdict of the regional court, with minor changes in the length of the prison sentence (11.5 years instead of 12 years).

Summary

The circumstances of the case presented, especially the fact that a body has never been found, meant that the text messages sent after the victim's disappearance were given great significance in the court proceedings. As a result, the linguistic comparison also had an unusually large influence on the overall result, where otherwise forensic linguistic evidence is rather treated as a supplement to other evidence. The contribution of forensic linguistics was not challenged at any point in the proceedings regarding the linguistic methods, the conclusions drawn from the linguistic findings and the question of admissibility of linguistic evidence in general.

As far as the situation of forensic linguistics in Germany is concerned, it seems that the subject and its experts can benefit from the proximity to the more established forensic sciences if their standards are adopted in dealing with everything that lies at the interface of law and linguistics. This assumption is also based on the experience that the courts often make use of section 256 in the Code of Criminal Procedures. It states that expert opinion from public authorities and experts who have been sworn to render opinions of the relevant kind may be read out in court (by the judge, for example) instead of summoning the expert to the main hearing to present the opinion him-/herself and being examined subsequently. From experience, it is also known that experts without an affiliation with a forensic science institute are examined much more critically. This

is, of course, well within the court's responsibility when an expert has to take care of all relevant aspects of expert work on his/her own.

It would be all the more desirable to overcome the current situation of forensic linguistics in Germany, characterised by fragmentation and heterogeneity, and to close the gap between state experts and those working in the private sector. In this way, and by linking up with other forensic disciplines, the scepticism that some forensic linguists encounter could be reduced and, above all, the necessary further developments could be pushed forward.

Notes

¹The abbreviations *StPO* and *ZPO* will be used for referencing. Both *StPO* and *ZPO* are used in their official English version. For the translation of legal content that is not part of officially acknowledged legal texts Dietl and Lorenz 2020 was used.

²In Germany, there is a difference between work on a freelance basis and a commercial basis. The main characteristic of freelancers is the assessment of their work to be intellectual and/or creative. Which label applies has implications for the taxation of income.

³Linguistic evidence relating to other issues than authorship will not be considered here.

⁴To address this demand, Ehrhardt/Fobbe 2021 published a booklet which tries to answer four main questions from the perspective of those in police and justice requesting forensic linguistic expertise: *What do I need? Where do I get it? How does it work? Have I received what I requested?*

⁵For data protection reasons, details cannot be related here. They are substituted by vague paraphrases.

⁶The request mentions 18 messages, but seven messages have been misattributed, so eventually, there are just 11 text messages whose authorship was questioned.

⁷Due to this paper's emphasis on procedural aspects and the role of the expert, the linguistic details cannot be related comprehensively.

⁸For the purpose of this article, conclusions of authorship comparisons are expressed in the "support-form". Support statements are verbal equivalents for ranges of likelihood-ratio values (ENFSI 2016: 17). In the time when the texts were analysed, the department of forensic linguistics (and phonetics, handwriting analysis etc.) was using "verbal posterior probabilities" (Morrison *et al.* 2016). There is however a transition in progress in which these verbal posterior probabilities are replaced by support statements.

⁹That this right can also be extended to allow an expert to question other experts, the author has already experienced when she was questioned by a psychiatrist about a defendant's frequent use of certain (perfectly well-formed) words which, however, the expert defined as "non-existent words".

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