How the Incorrect Use of a Medical Genre and Terminology can result in Erroneous Legal Judgements

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Abstract: The present study analyses the legal consequences of overlooked generic norms as well as ambiguous Latin, Hungarian and German medical terms in diagnostic reports of soft tissue injuries. The presented authentic German, Austrian and Hungarian diagnostic reports stem from a corpus serving as a basis for a large-scale linguistic analysis conducted in 2012. While the previous study focused on the problem of the limited forensic assessability of soft tissue injuries due to inconsistent clinical injury documentation, the present one goes a step further. To wit: interdisciplinary research highlights the possible legal ramifications on the offenders’ punishability in criminal trials.

Key words: medical diagnostic report, soft tissue injuries, forensic expert opinion, interdisciplinary research, criminal law

Introduction: Medical Diagnostic Report of Injuries (MDRI) in Hungary, Austria and Germany

In the case of accidents and assaults, the injured are usually examined and treated by accident surgeons in Hungary, Austria and Germany (in Hungary sometimes by GPs). On any number of occasions the medical diagnostic report provides the basis for the forensic assessment of the degree and type of injuries as well as the weapon involved in the case of a criminal procedure. Therefore, a very detailed clinical description is essential, particularly for the assessment of soft tissue injuries at a later date because said injuries can heal up or change quickly.
The institution of the so-called Forensische Ambulanz (Forensic Outpatient Clinic) facilitates direct examination of the injured by a forensic expert in the bigger cities of Germany and Austria. In cases where injuries need immediate medical care, a forensic expert visits the proband in the hospital as soon as possible. However, by the time the forensic expert gets to the hospital e.g. a wound will have been sutured, concealing important signs and features about the accident or assault. Consequently, even if a Forensic Outpatient Clinic is available, an accurate record using precise terminology is essential (cf. Verhoff, Kettner, Lászik, Ramsthaler, 2012).

**Corpus and Genre Analysis of Medical Findings**

The language use of the medical discourse has undergone numerous analyses, especially since Swales (Swales, 1990: 24–27) defined discourse communities in academic and research settings. Both written and oral genres of professional discourses have been characterized by Swales and Bhatia to a great extent (Swales, 1990:58; Bhatia, 1993:13). Until now, much research has been conducted especially on professional medical genres, using the method of specific genre analysis considered as 'a multi-disciplinary activity (Bhatia, 2002:3) with the objective of understanding realities of the complexity and the dynamically changing language' (Bhatia, 2002:4). Several corpora have been compiled to examine the language use of health care providers, a 'group not using a special language but a particular language for special purposes' (Rébék-Nagy, 2010:199).

Corpus analysis of the medical discourse originates from the field of medical informatics (Melles, 2004:1352). ESP teachers started to create corpora of medical text in the 1980s to gain deeper insights to the language structure and communicative function of written medical texts and to apply these in ESP teaching (e.g. Adams Smith, 1984; Salager-Mayer et al., 1989; Biber, Finegan, 1994; Williams, 1996; Ylönen, 1999; Gledhill, 2000; Cordella, 2004; Schumacher, 2006; Fryer, 2007, 2012; Weinreich, 2010).

In the course of time, the corpora have become more and more specific, the focus of research has been extended by the examination of the oral use of language (especially of the doctor-patient communication). Consequently, nowadays 'the existing corpus-based and genre specific studies of medical research texts have identified a number of key lexical, phraseological, and rhetorical features of this genre' (Melles, 2004:1354).

Within the medical discourse, the genre of the medical finding turned out to be a less widely analysed one (Fogarasi, 2012), which may be due to its terminological complexity. Medical reports usually consist of four ‘moves’ including the patient’s identification, past medical history and the most important issues of the current appointment, i.e. the present complaints and findings, followed by the applied treatment (Gurcharan, 1998:4:43; Cameron, 2002:286). Still, several genre-specific cor-
pora have been compiled and analysed (e.g. Jakob, 2005), some of them from a terminological point of view (e.g. Styka, 2013) while others aiming at the improvement of patient safety (e.g. Fujita et al., 2012).

**MDRI as an Individual Genre**

As for the structure, information content and terminology of medical diagnostic reports in general, it can be stated that medical diagnostic reports are usually written for statistical purposes as well as to inform other colleagues about the management of patients (Fogarasi, 2012). However, medical diagnostic reports written on injuries are applied by a very different discourse community, including primary treating doctors, forensic experts and in case of a criminal procedure, even the investigation authorities (Fogarasi, Schneider, 2015). As the discourse community involves many different professionals, it is to be anticipated that the genre is influenced by a high degree of interdiscursivity (Fogarasi, 2012), meaning a variety of discursive processes and professional practices, often resulting in mixing, embedding, and bending of generic norms in professional contexts’ (Bhatia, 2010:35).

In Hungary, the clinical findings of injuries are to be recorded in an official, numbered form (látlelet = ‘visual findings’) or in a word document following the structure of the form. In Germany and Austria however, conventional clinical findings are used in cases of injuries too. The rules of describing injuries are taught to all medical students within the framework of the clinical subject Forensic Medicine, so that all physicians know the specific terminology, even though there is no special form for describing injuries.

According to the generic norms, MDRIIs contain a very detailed description of the visible injuries. They list the injuries according to body parts, and describe their characteristics: width, length, depth, colour, direction and in connection with wounds their base, edges, side-walls, margins and surroundings (Sótonyi, 2011:104–105; Brinkmann, Madea, 2004:1273–1274). At the end, as a summary, they record the types of injuries as diagnoses related to the affected body parts. In Hungary, it is a requirement of the genre to record the diagnosis in both Hungarian and Latin, in Austria diagnoses are listed in Latin (Lippert, 2010) and / or German, while in Germany they are written almost exclusively in German (Fogarasi, 2012:135–138).

Considering all the discursive, structural and terminological characteristics mentioned above, MDRI is to be regarded as a specific genre (Fogarasi-Nuber, Rébék-Nagy, 2012), based on the definition of genre by Swales and Bhatia (Swales, 1990:58; Bhatia, 1993:13).
Ambiguous MDRIs

In several articles published in Hungary and Germany, forensic experts have brought to accident surgeons’ attention that in numerous cases the forensic assessment of injuries is difficult (if not impossible) based on the clinical documentation (cf. Szabó, 2008; Verhoff, Kettner, Lászik, Ramsthaler, 2012). Furthermore, insurance medical experts in Hungary have complained about ambiguous MDRIs, as in case of misleading descriptions of injuries, potentially resulting in denying payment to the insured by insurance companies (Löke, 2006). In Germany, a comprehensive analysis has been performed on the documentation of injuries caused by domestic violence, from a forensic medical point of view (Wagner, 2010). It revealed that the clinical documentation of numerous injuries was insufficient and the use of terms was often not precise enough to facilitate an exact forensic assessment.

Limited Forensic Assessability of MDRIs from a Linguistic Point of View

In 2012, linguistic research showed that about 20% of the MDRIs describing soft tissue injuries were found to be only partly assessable by forensic experts in each of the three countries (Fogarasi, 2012). Three typical mistakes were revealed as underlying linguistic causes of limited forensic assessability: the neglect of generic norms, inconsistent use of terms (deriving from the different classification of soft tissue injuries in the terminology of surgery from that of forensic medicine) and the absence of essential information (Schneider, Fogarasi, Riepert, 2014). These factors all resulted from a high degree of interdiscursivity (Fogarasi, 2012), based on the definition of interdiscursivity by Bhatia (Bhatia, 2010:35).

Legal Consequences in the Continental Law System

What all three countries, Germany, Austria and Hungary, have in common is the Continental Legal System, in which an independent expert appointed by the judge ‘supplements’ the lack of medical expertise of the judge. As opposed to the Continental Legal System, in the Anglo-American legal system each party provides their own expert witness, whose aim is to convince the jury. Therefore, in both legal systems the forensic expert is ‘the evidence’ for all medically relevant questions. If the experts cannot make unambiguous statements due to poor documentation, they fail to provide evidence at all. As the judge must come to a decision beyond any reasonable doubts, it can only be hoped that there is still other evidence such as witnesses or visual objects available to examine the case (Fogarasi, Schneider, Bajnóczky, 2014).

Inadequate documentation and in particular erroneous or inconsistent use of terms for injury patterns such as chop, stab and incision in the studied documentations (Fogarasi, 2012) will regularly present a false picture of the offense in question. As a result, the criminal investigation authorities might regularly be led in the wrong
direction, regarding both the question which crime was committed and which punishment could be an adequate answer to the crime. All three error constellations can influence both the classification of the crime and the selection within the range of punishment. E.g. for a slight bodily harm a judge in Germany might sentence the offender to a fine or to imprisonment up to 5 years. If the judge has a false impression of the crime, he might impose an inappropriate sentence, e.g. if he wrongly assumes a less (or more) serious offense he would orientate the penalty on the lower (or upper) limit of the range of punishment. The difference in punishment can even manifest in several years of imprisonment.

The Goal of the Present Study

The present study aims at continuing the prior research (Fogarasi, 2012) firstly by comparing terms used for soft tissue injuries in the native languages as well as in Latin in all three countries and secondly, by pointing out possible criminal legal consequences of inconsistent terminology use, based on authentic examples. The authors intend to raise awareness of possible legal consequences occurring due to erroneous use of medical terminology. For this purpose, the present study analyses authentic cases from the point of view of all participants of the discourse community involved in the criminal procedure.

Material and Method

The present study was carried out based on the results of a large-scale corpus analysis of 339 Hungarian, 101 Austrian and 106 German MDRIs and their related forensic expert opinions provided by the University Departments of Forensic Medicine of Pécs and Debrecen (Hungary), Freiburg and Mainz (Germany) and Graz (Austria) as well as by Institutes of Forensic Experts and Forensic Research (ISZKI) located in different regions of Hungary, from the period between 1995 and 2011. For the statistical analysis, SPSS statistical software as well as the method of manual contrastive analysis were used (cf. Fogarasi, 2012). Forensic files were processed in txt file format and examined using the function Key Word in Context (KWIC) of the concordance software WordSmith 5.0.

As in the preliminary research the Austrian sub-corpus only included the citations of MDRIs leaving out Latin terms, in the present study a further 37 authentic Austrian MDRIs were examined and made available by the Department of Forensic Medicine of the University of Graz (Austria), from the period between 2013 and 2014. For the analysis of the latter, Microsoft Excel 2013 and contrastive manual analysis were used. Interdisciplinary research allowed for the presentation of the possible consequences for the prosecution of criminal cases stemming from the use of inconsistent terminology in the three countries.
## Interdisciplinary Interpretation of the Results

The comparative corpus analysis showed that in Hungarian MDRIs, mostly Hungarian terms were used for describing injuries. Latin terms were only detected in case of haematomas and joint injuries in the diagnostic part of Hungarian MDRIs. Although both Hungarian and Latin terms are required by the genre, in 17% of the diagnoses the Latin term was missing. As opposed to the Hungarian sub-corpus, in the German one only haematomas were recorded in Latin in both the description and the diagnostic part. The rest of the injuries was recorded in German. However, in the Austrian sub-corpus Latin terms were dominating. In 75% of the Austrian MDRIs only a Latin diagnosis was registered without any German description. The Latin term of the diagnosis referred to the type of injury, the body part and the affected side.

![Fig. 1: The most frequent terms describing soft tissue injuries used in the Hungarian, Austrian and German sub-corpora in both Latin and the native language, respectively](chart)

Chart on Fig. 1 shows that in all three sub-corpora several synonyms were detected, so the participants of the discourse communities seem to prefer different terms even within one country. Moreover, differences in terminology were found even between the two German-speaking countries, i.e. Germany and Austria.

As for the *Latin* terminology of soft tissue injuries, Chart 1 illustrates that different Latin terms were detected describing *stab wounds* in the Hungarian and Austrian clinical findings. Since in Germany diagnoses are mostly not recorded in Latin, only a comparison of Latin terms used in Hungary and Austria was possible.
In both the Hungarian and the German sub-corpora the greatest variety of terms was found in connection with lacerated wounds. In the Hungarian sub-corpus, most clinicians seem to prefer the term repesztett sérülés, the synonym also favoured by forensic experts. However, the most frequently used Latin term (vulnus contusum) depicting the same injury is not the word-for-word translation of the Hungarian term. In the German sub-corpus, two synonyms (Platzwunde and Riss-Quetschwunde) were found referring to lacerated wounds, of which Platzwunde was the more frequently applied one. However, in the Austrian sub-corpus, the other term (Riss-Quetschwunde) was the most commonly used one describing the same injury. Although in Germany the term Platzwunde is the most commonly used one, in the technical literatures of forensic medicine in both Germany and Austria the term Riss-Quetschwunde is recommended. Only the latter term implies the underlying mechanism in an appropriate way (cf. Brinkmann, Madea, 2004:364).

In Hungarian MDRIs, diagnoses are to be recorded in both Hungarian and Latin. In spite of this generic norm, 7% of the diagnoses written in Hungarian did not correlate in meaning with the Latin terms in the Hungarian sub-corpus. A complete correlation was found in only 29% of the diagnoses. In the remaining cases either the Hungarian or the Latin term was missing (Fogarasi, 2012:36). The most frequent ambiguity was revealed in connection with the terms vágás (chop) and metszés (incision): the same injury was diagnosed as a chop wound in Hungarian, but as an incised wound in Latin or vice versa. The same confusion also appeared between the Hungarian terms depicting chop and incised wounds in descriptions and diagnoses: e.g. a vágott sérülés (chop wound) is recorded by a primary treating doctor in the description part in Hungarian, and is referred to in the diagnostic part using the Hungarian term metszett sérülés (incised wound) (cf. Fogarasi, Schneider, Bajnóczky, 2014). A possible reason for this confusion was revealed by the comparison of terms used in surgery and forensic medicine in Hungary: incised and chop wounds are not differentiated in surgery (cf. Fogarasi, 2010), since they are handled as one category from a therapeutic point of view.

In the German sub-corpus, a similar confusion was found between the German terms Stichwunde (stab wound) and Schnittwunde (incised wound) in the description and diagnostic parts of the same MDRIs (Schneider, Fogarasi, Riepert, 2014). However, the criminal legal consequences resulting from such confusions might be of great importance.

Possible Legal Consequences

The following examples represent how the use of inconsistent terminology together with insufficient description of injury characteristics might impair the work of the investigation authorities as well as jurisdiction.
Example 1 (Hungarian sub-corpus, 2009):

Since the Hungarian Criminal Code (§ 164) distinguishes between light bodily harm and grievous bodily harm on the basis of whether the injury suffered needs less or more than eight days to heal, it is obvious that judgment biases are inevitable. E.g., in the official assessment tables, slight *incisions* are typically classified as slight bodily harm while *chops*, which are typically caused by a forceful impact, lead to fascia injuries and would usually not heal within eight days. Therefore, chops might be classified as grievous bodily harm. Furthermore, a guided *chop* towards the upper body rather suggests that there is a presumable intent to kill, which makes the criminal investigation authorities start an extensive investigation into a possible homicide case.

If the victim survives, there would obviously be no autopsy. The forensic expert and the prosecution would be dependent on the diagnosis made by the accident surgeons, as the wounds suffered – after the medical treatment – could not be used as evidence anymore. With an inadequate diagnosis it would become extremely difficult to prove whether the offender acted with intent to kill or not.

For the assumption of a killing intent it is sufficient that the offender willingly accepts the possibility of the victim’s death (so-called indirect intention or *dolus eventualis*). According to the jurisdiction, the offender must recognize causing the victim’s death as possible and not completely improbable and accept the consequences anyway. Therefore, it is not sufficient for the assumption of a killing intent that the offender commits the attack in a particularly dangerous manner, such as by flailing a slash and thrust weapon. However, the court must take into account all possible circumstances, including the question whether the offender could see the actual risk of killing or – *in dubio pro reo* – was still entitled to believe that the victim at least would not die. The principle ‘when in doubt, for the accused’ dictates that when a criminal statute allows more than one interpretation, the one that favours the defendant should be chosen. Consequently, *if in dubio pro reo* an intent to kill cannot be proven, the offender could only be sentenced for grievous bodily harm, involuntary manslaughter or bodily harm with fatal consequences.
Fortunately, in most of the cases the way a wound was caused would give information about the offender’s intention. E.g. *chop* and *stab wounds* in the upper body, especially in the head, neck, chest and abdominal areas, performed with a certain force would always be considered as extremely dangerous, so it is presumed that the offender recognized that the victim might die. This is why the (German) jurisdiction would regularly assume intent to kill and sentence the offender for attempted murder with a penalty of imprisonment from five years to life.

However, an *incision* in the upper body would usually not meet the requirements of killing intent. Therefore, the offender would be sentenced for bodily harm. He would only be sentenced to pay a fine or serve a sentence of up to five years. Furthermore, when it comes to the sentence, the judge would probably consider the criminal energy for causing an *incision* as less than for a *chop* or a *stab* wound and therefore impose a less severe sentence. It is obvious that the wrong use of terms can lead to inappropriate sentences.

In the German sub-corpus, in 22% the terms *Stich* (stab) and *Schnitt* (incision) were used synonymously within the same MDRI, describing the same injury (once in the description, once in the diagnosis). As a (typical) example No. 2 (Freiburg 2009) may well show:

Example 2 (German sub-corpus):

![Image](image.png)

The reason for the confusion of these two terms in Germany might be that the definitions of incised and stab wounds used in practice are not based on the underlying mechanisms but on the difference of clinical presentation in depth and length (cf. Fogarasi, 2012). Additionally, if a knife is used as a thrust weapon, both general and medical German language prefer to use the word *knife* in combination with *stab* (i.e. knife stab) instead of knife *incision* (cf. Schneider, Fogarasi, Riepert, 2012). Expressions like *Messerschnittverletzung* (knife incision wound) or *Messerschnittzerei* (approx. 'knife incising’) would sound extremely unfamiliar and therefore appear strange for both the general and medical use of German language.

As for the penalty, causing bodily harm by dangerous means (§ 224 German Criminal Code) might have a strong effect on the punishment. In this case as well, the court would always consider a *stab* to involve higher criminal force and cause more serious damage than a supposedly less harmful *incision / cut*. Secondly, on the basis of
a *stab* in the upper body, the prosecution will focus on a presumable intent to kill and therefore make an accusation of attempted murder (§§ 212, 22, 23 German Criminal Code). If there is (only) an *incision* in the upper body, the court – *in dubio pro reo* – would have to deny intent to kill (cf. Schneider, Fogarasi, Riepert, 2014).

In Austrian MDRIs, insufficient clinical documentation is the main cause of difficulties for the criminal investigation authorities. The Austrian Criminal Code – similarly to the Hungarian one – primarily differentiates between slight and grievous bodily harm (§§ 83, 84 Austrian Criminal Code), based on whether the suffered injury needs less or more than 24 days to heal or can be considered as 'intrinsically severe'. The latter category typically includes life-threatening injuries (e.g. a stab wound in the abdomen, life-threatening openings of body cavities, incisions and stab wounds that could lead to haemorrhaging), compound fractures or even tooth loss if the masticatory function is impaired. The courts have repeatedly pointed out, however, that the combination of several minor injuries, in the overall impression, can be classified as grievous bodily harm in case the victim has suffered for more than 28 days in total, even if only seemingly/ in appearance. Consequently, to facilitate an overall analysis, it is essential that both the forensic medical expert and the trial court can get a realistic impression of the facts.

In example No. 3 (Graz 2011) it is clear that a statement to the impairment of the masticatory function is not possible without a re-examination of the victim.

**Example 3 (Austrian sub-corpus):**

Forensic expert opinion: 'Der angebliche Zahnverlust und die Zerrung im Bereich des rechten Daumens entziehen sich auf Grund der fehlenden Beschreibung einer näheren Beurteilung.'

('Due to the *missing description* the alleged tooth loss and the strain in the area of the right thumb can not be diagnositized.')

**Conclusion**

In conclusion, it was found that the terminology of soft tissue injuries is ambiguous, be it within one country or between German speaking countries.

The use of terms in MDRIs turned out to be inconsistent in the native language in any of the three countries, i.e. several synonyms are used and the clinical and forensic participants of the discourse communities seem to prefer different terms. Furthermore, differences in the terminology of soft tissue injuries were detected between the German-speaking countries as well as between the Latin terms applied in Hungary and Austria. The latter is a highly important result from a terminological point of view because it revealed that not even medical Latin is standardized in Europe.
In addition, a main linguistic conclusion of the interdisciplinary analysis can be summarized as follows: considering the fact that MDRI s are used by the investigation authorities, the preliminary conception of the discourse community of MDRI s (Fogarasi, 2012) has to be reviewed. It has to be expanded to include not only primary treating doctors and forensic experts but also the members of the investigation authorities.

The work of the criminal investigation authorities is affected by inconsistent terminology in two ways: firstly, the investigative results can be distorted due to incorrect clinical documentation as presented in this article. Secondly, different national standards in documentations can cause impairments in cross-border investigations. There has been significant progress in the field of police and judicial co-operation in criminal matters (PJC) in the EU since the Treaty of Maastricht. Therefore, it would be rational to develop uniform standards in the documentation of injuries as well.

In Hungary, standardization of the terminology of MDRI s in the form of computer software is under way, in co-operation with the Department of Forensic Medicine at the University of Pécs.

References


Bionote

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