# CREATING A GERMAN-SLOVAK HUNTING TERMINOLOGY DATABASE

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**Abstract**: The paper strives to introduce terminology tools in creating a German-Slovak terminology database of the relevant specialized terms used in hunting in the context of the diversity of available resources and verification tools such as the German and Slovak national corpora. The focus will be on corpora as verification tools and their role in creating a terminology database. In addition, we will consider the principle of the diversity of existing sources. The theoretical basis is grounded in corpus linguistics, technical language, terminology work, and semantics. The authors of the study being presented have explored corpora as a relevant tool in terms of quantity and quality. The German and Slovak national corpus serves as an indicator of rare terms - with a low occurrence presupposing a higher professional level of specialized lexemes. The approach of common or zero occurrence in national corpora needs to be implemented into terminology work and creating terminology databases. Thus, the authors of the study use, compare, and analyze the German federal corpus – DWDS (Digitales Wörterbuch der Deutschen Sprache) and the Slovak national corpus (SNK). In the process of terminological search in the canons, they have applied homogenous search criteria. As a result of the analysis underpinned with concrete examples from the hunting field, they demonstrate a procedure for creating a terminological database of a specialized domain. Overall, they attempt to deliver an innovative approach combining the latest knowledge in linguistics and terminology work.

**Keywords:** terminology database, hunting, German, Slovak, corpora, terminology work

#### Introduction

In the following pages, we aim to introduce a terminology project that attempts to bring together concepts, methods, and procedures for elaborating a specialized terminology of hunting in a combination of two languages — German and Slovak. Also, the objective of the presented

terminology project is to demonstrate the efficient use of corpora tools that we can apply in the terminological project based on the German and Slovak corpora. Furthermore, the project tries to question efficient approaches in terminology work while using standard and disruptive language technologies.

The terminology of hunting opens a few questions of how to explore, define and unify the concepts and designations in language variants and the dynamic professional environment of hunters. Moreover, bilingual-, or multilingual terminology faces various problems on conceptual and language levels due to differences in technical and communicational paradigms. In the case of our terminology project, aimed at creating a bilingual terminology database in German and Slovak, the problem was to determine which terms should be included on conceptual and language levels due to differences in technical and communicational paradigms. Our terminology project also focuses on the problem of how to determine which terms should be included in a termbase and which could be left as standard lexemes in a legal dictionary. Also, several historical, cultural, and linguistic distinctions in both languages, German and language of hunting, and geographical nuances in the language of hunting, have been a real issue in elaborating the terminology database.

German as a pluricentric language offering multiple linguistic and terminology variations, which is a challenging task for a terminologist, who must consider the purpose of the termbase being worked on: Does it have to include all terms from the area of Austria or multidialectal geographic regions in Germany or Switzerland? There are two options of how to proceed and work with the data:

- Extracting and combining the terminology from existing databases,
- Ad hoc creating terminology by researching the available lexicographic works.

Since there is a lack of specialized multilingual terminology databases available for hunting, we have decided to start creating an ad hoc database, based not on geographical occurrence, but on their prevalence in accessible corpora sources we work with. Knowing that the terminology of hunting includes a unique vocabulary used by a small group of speakers, we will build up terminological entries of words based on the hypothesis that the web corpora offer a low to zero frequency occurrence of specialized terms. The results should clarify whether the national canons might be applied as a secondary tool for terminology work.

## 1. The importance and relevance of designing/studying specialized terminological datasets

Terminological databases are (or certainly should be) a relevant, reliable source of information and a valuable tool in the work of a translator. Their reliability is based on the standard structure of the terminology database, and the information included: the expression in the source language; definition from a specialized source; bibliographic details on the technical source; the context from the natural head in which we can find the word; bibliographic information about the source.

There are diverse terminology databases publicly available in several languages, and narrowly specialized terminology databases focused on a specific language pair are seldom developed at such a level that they can serve translators as an additional tool in their work. The lack of specialized databases in the field of hunting in the German/Slovak language pair is the main incentive to start a terminology project, which would fill the gap in the domain of a huntingbased repository as a reference tool for translators and experts. There are several reasons why a terminology database for hunting does not exist. In the case of the language of hunting, it is a narrowly specialized area, which we do not necessarily see as commercially attractive, unlike other domains such as marketing, banking, as well as sports or information technology. Hunting terminology is a specific area tied to a country or a region, making adjusting the target equivalents difficult. Moreover, as a language of limited diffusion, Slovak does not have so many users as, e.g., German.

The field of translating specialized texts is known for its lack of narrowly specialized bilingual or multilingual terminological databases. Regarding the benefits that these databases offer (see chapter 5 - Research material), the main ambition of the project is to create a bilingual German-Slovak terminological database of terms in the field of hunting. One of the critical steps is to select the relevant words to be included in such a database. The study's primary goal is to present a strategy for choosing technical terms forming a terminological database for hunting language. As far as the authors know, the issue of choosing words for such a terminological database has not been given much attention in the relevant resources. The principal, innovative feature of the presented procedure is corpus resources while using specific corpora to illustrate our system - the German DWDS corpus and the Slovak national corpus.

#### 2. Specifics of the language of hunting

The specialized language on which the study focuses is the technical language of hunting. Therefore, before we clarify the theoretical background and principles of terminological work relevant to the presented topic, we need to outline the specifics of the hunting language. When looking at the language of hunting as a specialized language, it is possible to apply the generally valid principles of the division of technical languages - horizontal and vertical division (cf. Hoffmann 1985, 58 ff.).

The field of hunting is divided into several sub-areas - e.g.hunting biology, hunting cynology, game care, game diseases, hunting shooting, legislation. Therefore, it is possible to see internal horizontal division within the hunting domain. Such a diversification, to some extent, conditions the occurrence of internal polysemia as a phenomenon where one expression can acquire different meanings related to specific sub-areas of one field (hunting). In hunting shooting, the importance of securing a weapon is to set the safety. The word setzen - about the particular game species, meaning to hatch or give birth to the young, kindle - about the hare, rabbit; to fawn (to calve) - about deer. In the field of hunting cynology, to put a dog on the scent (to lay a dog on the trail). The German word Blatt, which in the field of hunting shooting, is associated with the meaning of knife blade. In the area of hunting biology, it indicates shoulder-blade or shoulder. At the same time, there is a transfer from/to common language on a linguistic level (Ger. Gemeinsprache). The word Blatt is associated with the meaning of letters in everyday language. Another characteristic feature of the specialized vocabulary of hunting is imagery or the symbolic nature of linguistic means.

The vertical division of specialized languages by hunting users can point to various means of expression associated with different communication situations linked to the pragmatic aspect. Depending on the particular communication framework, other means of expression may indicate the same facts. Such differences can be observed, for example, in the distinction of communication strategies in communication between scientists, experts (typically in written language, in specialized publications) on the one hand and on the other hand in a communication situation linked to the practical use of the language, e.g., during the act of hunting (typically spoken language). Expressions of spoken language often take on a non-standard character. In lexicographic works, they are marked as symptomatic, e.g., with the definition of a colloquial expression (call.) or with a note "incorrectly"-etc. An example of an idiomatic expression is the connection to mark /

for links to mark after intervention established in the specialized literature. The term *front deer* is marked as incorrect in dictionaries (cf. Ferjentsik 1999, 194); in the technical literature (c.f. also Hell 1988, 445), the term *head deer* stands for it. /EN: leading animal, leader /. One of the consequences of such a parallel use of linguistic expressions is another feature of the specialized language of hunting - the frequent occurrence of synonymous expressions. Their origin may not only be conditioned by the above facts, but may also reflect the existence of dialectal expressions or – mainly with animal biology of hunting – a subspecification of species.

#### 3. Theoretical basis

The intention to create a German-Slovak terminology database is grounded on corpus linguistics, professional languages, terminology work, and semantics (specifically the contextualism theory). Working with a corpus (for the term corpus, see Lemnitzer; Zinsmeister (2006), Perkuhn; Keibel; Kupietz (2012) in the literature of German provenance and Šimková; Gajdošová; Kmeťová; Debnár (2017) or Šimková; Gajdošová (2020) in Slovak sources) offers several advantages, which include the authenticity of corpus resources, but also the speed and accuracy of electronic data processing. The analysis of authentic language material aims to achieve valuable information reflecting actual language practice. Electronic data processing is implicitly associated with the possibility of the fast and reliable processing of extensive data through relevant software developed for a corpus analysis, which enables users to obtain a different type of information and open a new perspective when looking at the material being analyzed for a smaller amount of data (usually from print sources). At the same time, however, it is necessary to mention the disadvantages, which include, among others, corpus error rates reflecting authentic (and thus, to a certain extent erroneous) speech.

The term *professional languages* (*Fachsprachen*) is often used in the technical literature (e.g., Roelcke (2010) with an emphasis on the form of the plural, to point out the wide range of differences between specific professional areas within the level of an expression. The most striking differences are related to the linguistic level, represented using the phrase. In this context, regarding the language of hunting, it is desirable to point out the difficulty of defining a term that is linked to looking at the language of hunting (*Jägersprache*) as a means of communication between professional language (*Fachsprache*) and jargon (*Sondersprache*). While the term *professional language* is determined by the technical definition of a specific field, the

terminology is related to a social definition. When choosing the language of hunting, the social or a sociolinguistic perspective associated with a historically and socially established community of communicators, i.e., producers and recipients, comes into play (sociohistorical aspects of hunting, see, e.g., Šomek (2019), Červený; Hell; Slamečka (2019: 15 ff.). Therefore, the terms processed in the database may not be terms *par excellence*, but may be linked to jargon and professional language. For other characteristics of the language of hunting, see chapter 2. *specifics of the language of hunting*.

In addition to the principles of terminology work (see chap. 4) on the elementary level, we briefly mention the theory of contextualism (see Preyer; Peter (2005) which offers a broader understanding of semantics. The inclusion of this perspective stems from the importance of the co-text (i.e., the linguistic environment) for determining the meaning of a particular (technical) linguistic expression. The idea of why we choose the definition of a word based on its specific use in the text has been evidenced by Wittgenstein in his statement, "The meaning of a word is its use in the language." (Wittgenstein, 1977: § 43). Especially for hunting language, which is characterized by a high proportion of symbolic names that often have a metaphorical or metonymic basis (Vyhnáliková, 2014:240 ff.), it is essential to distinguish between the meaning of expressively identical forms on their use in the co-text, because this is a prerequisite for the correct categorization of a particular word as an expression of a professional or common language.

#### 4. Terminology work

#### 4.1. Current state of research based on the field of hunting

One of many challenges<sup>[1]</sup> in examining specialized language (linguistic forms used by a linguistic community only by some of the members) is related to the process and management of terminology in the field of hunting. Conceptually, the notion of terminology and terminology work (management) is critical to researchers and practitioners in translation, linguistics, lexicography, specialized languages, language planning, and machine translation (Munková; Wrede; Absolon, 2019). Since terminology work is a team and interdisciplinary-based activity, it comprises dozens of planned steps to identify, extract, and analyze the concepts which have a firm place in the system of the professional field as validated (and validatable) designations-terms. Concerning the terminology principles according to ISO standard 704, in compliance with Wüster's structural semantics and "four dimensions of terminology work" (1969: 1-16), we must consider the fact that hunting terminology must be examined in the light of its

limited usage because the language of hunting is communicated by a smaller number of users on a professional level. Communicating or understanding this sort of special language may bring difficulties for laypeople since the formal side of the language of hunting noticeably resembles the standard lexicon (e.g., Nachsuche - 'search/ing (for small game'), Blume - 'flower' vs. 'tag,' Löffel - 'spoon' vs. 'ear' etc.), even if their semantics differ on the conceptual level. Due to users, termbase creators struggle with accessible resources with equal value and credibility in all languages. Unlike more frequent and "visible" terminology such as online marketing, the vocabulary of highly specialized domains in the online space is the exception rather than the rule.

The most relevant approach would be to choose the process of term proposal and change suggested by Weilandt's following model (2015: 269-301):

- 1. Term existence verification Yes/No
- 2. Concept correctness A. Yes, B. No
- A. Term/concept exists,
- B. New concept needed.
- 3. Concept existence C. Yes, D. No
- C. Revision of term needed,
- D. New concept needed.

#### 4.2. Our approach towards terminology work

We process the bilingual termbase of hunting in the *German* (source) *and Slovak* (target) language pair in line with ISO standards (704) and the term autonomy principles set by ISO 26162. *The term autonomy suggests providing an equal degree of information and description for each term included in a term entry* (Sauberer, 2017).

The elaborated terminology project in the domain of hunting follows several principles that are based on relevant research literature (Wrede; Štefčík; Drlík, 2016: 92-99): The native speaker principle - the original text is written by a native speaker. The professional competence principle – the author of the publication - must be an expert in the field. The topicality principle - the source should reflect the current state of scientific research.

In the first stage, a glossary frame of term entries with German metadata we seek for the designed equivalents and based on a conceptual level (see ISO 1087), i.e., we structure the concepts according to their relations. We apply the same procedure to the Slovak equivalents compared to their German source terms compiled from the sources mentioned with the same structural questions mentioned

above by adding a fundamental question on comparing the concepts of the source and target languages: What is the degree of equivalence between the designations?

We input terminological records directly into MS Excel (see Tab. 1) according to the STN ISO 10241 standard because

- a. Excel offers functionalities that are necessary for a uniform and clear structure of terminological records,
- b. terminological records can be exported from Excel to the terminology databases of the mentioned software platforms, although not all platforms are compatible with Excel formats.



Tab. 1: Example of terminological record

The terminological record (see Tab. 1) should contain the following information: *code of relevant domain* (e.g., cynology, game biology, etc.), *term in German, part of speech, abbreviation, synonym, definition, source of meaning, context, the origin of context, note*, plus all the same information categories for the excellent term in Slovak.

#### 5. Research material

Considering the existence of different types of available sources of information, their thoughtful selection and the right combination are prerequisites for creating language material in the diversity of sources. Making a wise selection combined with a suitable variety are prerequisites for building a solid basis of information sources to develop terminological databases. The combination of the inclusion of different types of sources in the selection of research material usually results in a more comprehensive view of the field, resulting from the interweaving of several specific perspectives, each to a particular type of source (translation dictionaries offer foreign language equivalents, context, electronic publications guarantee fast operability, e.g., regarding obtaining data on the frequency of the term occurrence (or other specific phenomena) in the examined corpus, etc.). Comparing partial information from various sources makes it possible to supplement, verify, and critically reassess the findings (in translation dictionaries, there are usually several equivalents. The corpus may contain errors resulting from natural, authentic use of language, etc.), which significantly increases the credibility in the value of information.

In our terminological research, we have been using:

I. Print dictionaries and textbooks (e.g., Šomek (2019), Červený; Hell; Slamečka (2019), Ferjentsik (1999), Hell (1988), Seibt (2017), Schulte (2019))

Advantages: higher reliability of verified and used terms

Presence of all information about assignments needed for the term bank:

a. definitions or concept information, b. abbreviations, c. synonyms, d. context

Disadvantage: lower accessibility

**II. Electronic dictionaries and online texts** (e.g., Jahresbericht. Jagd und Artenschutz)

Advantage: higher operability (accessibility)

**Disadvantages**: lower reliability and incomplete or missing some information on term entries, such as abbreviations, sources

#### III. Existing national corpora as verification tools

Digitales Wörterbuch der deutschen Sprache (DWDS) Slovenský národný korpus (SNK) - Slovak National Corpus

#### 5.1. Print dictionaries and textbooks

In reality, translators who deal with hunting for the German-Slovak language pair currently can make use of a few specialized translation and interpretation dictionaries, which are briefly listed below:

- 1. The six-language translation dictionary by Koloman Ferjentsik, published in 1999, includes Czech, English, French, Hungarian, German, and Slovak. It contains more than 3,700 technical source terms from all hunting areas, their translation into the relevant languages with synonyms.
- 2. The German-Slovak and Slovak-German Hunting Dictionary by Ivan Krenčey was published in 2007. It contains 20,000 Slovak-German and German-Slovak entries and Latin equivalents of animals, diseases, etc.
- 3. German-Slovak and Slovak-German translation dictionary of hunting "Jagdwörterbuch. Deutsch-slowakisch und slowakischdeutsch" is a more concise lexicographic work compiled by Aurelia Česneková. It was published in 1995.
- 4. A traditional dictionary in the category of monolingual dictionaries is "Poľovnícky náučný slovník" from 1988, authored by Pavel Hell in the Slovak language. It is a relatively large publication in which many entries and detailed explanations are available.
- 5. A more concise monolingual dictionary in Slovak by the authors Herz Ciberej (2000) is the Slovenské poľovnícke názvoslovie (Slovak

nomenclature of hunting). This dictionary provides a brief explanation of basic terms in hunting. It is a good reference for the translator as a starting tool for clarifying the meaning of basic terms in hunting and their brief interpretation. However, the translator may not find less frequent terms or clarification of deeper meanings here.

- 6. From the perspective of the German language, an extensive lexicon of hunting with the name "Das große Jagdlexikon" by the authors Stinglwagner Haseder (2012) can be perceived as very beneficial. It includes relatively detailed interpretations of terms in all areas of hunting.
- 7. Specialized publications as a complementary aid in the translation process can also help prepare for exams in hunting, such as the publication "Grundwissen Jägerprüfung" (2017), authored by Siegfried Seibt.
- 8. From the point of view of the Slovak language, publications as a primary tool for exams in hunting or as an information source for those who want to learn more about hunting include, for example, publications by the authors Červený, Hell, Slamečka entitled Poľovníctvo (2019), which are publicly available.

Although specialized translation and monolingual dictionaries or publications of a specific professional field represent an indispensable tool in the context of translation work aimed at a narrow and technical domain, generally, they are not a good source of information. The translation practice shows that it is occasionally possible to find different translation equivalents, and it's hard to find details among these translation equivalents. Likewise, monolingual dictionaries may not always provide all the information relevant to a translator. Searching for specific necessary information in specialized publications is usually timeconsuming, with no guarantee of finding the essential information. Thus, we are taking a newer path by applying the text corpora and existing specialized datasets in the terminology search to make the terminology database and build new terminology datasets of minor languages in the field of hunting, which do not exist in electronic formats yet. Thus, the terminology platform of hunting will be the first complex online termbase that can be a build-on platform as a search and operational tool that one can easily access in line with the FAIR principles: interoperable, reusable, findable, and accessible<sup>1</sup>.

<sup>&</sup>lt;sup>1</sup> Wilkinson, Mark D.; Dumontier, Michel; Aalbersberg, IJsbrand Jan; Appleton, Gabrielle; et al. (15 March 2016). "The FAIR Guiding Principles for scientific data management and stewardship". ~ *Scientific Data*. Kučiš and Seljan (2014, 322) also refer to similar challenges in the following context: "With high expectations

#### 5.2. Electronic dictionaries and online texts

Electronic dictionaries and Internet texts can also serve as a source of information in the translation process. However, it may not always be easy to obtain readers developed comprehensively or that contain the required helpful information for a particular translation process due to specific domains. In the case of Internet texts and dictionaries, it is also essential to pay attention to credibility, I.e., to the relevant expertise of the source. The advantage of such readers is the possibility of their operative processing, e.g., through corpus linguistics tools. The disadvantage is the temporary availability of Internet text sources, e.g., updating or canceling the source website.

#### 5.3. Existing national corpora as verification tools

In the following section, we will pay closer attention to selected finished national canons. When speaking about national corpora as a source of information that we can use to create terminology databases, we mean existing (finished) corpora made up of several subcorpora, characterized by their genre and type diversity and consisting of a large amount of data (tokens).

One of the corpora included in the set of DWDS is the DWDS-Kernkorpus (1900-1999). The suitability of its use as an information source in creating a terminology database of a particular field is strengthened by several of its characteristics: it is a balanced corpus consisting of German scientific, factual, newspaper, and fiction texts from a period of one hundred years (1900-1999) and 121,397,601 tokens. We use this corpus because of the content (scientific and factual texts), the operability in term search, and the volume parameters, which became a perfect referential source to elaborate a terminology database. The DWDS-Kernkorpus 21 (2000-2010) corpus, which contains scientific, factual, newspaper, and fictional texts from 2000 to 2006, is a complementary source of information. However, it is a smaller corpus (15,469,00 tokens) that is not fully balanced yet.

The Slovak National Corpus (SNK) also consists of several corpora (see Structure of the Slovak National Corpus). All the publicly accessible SNK texts are available in the current version of the *prim-9.0-public-all* corpus with a range of 1,652,197,242 tokens. Its balanced version *prim-9.0-public-eye* consists of specialized, journalistic, and fictional texts and has a range of 453,594,173 tokens (see Corpus structure prim-9.0). Such

regarding translation quality, time constraints and the demand for increased productivity, translators are faced with new challenges in education and in business. "

parameters are a good precondition for the suitability of its use as an information source for the sake of terminology database compilation. From the point of view of the Slovak-German language combination, the Slovak-German parallel corpus (*par-side-all-2.0*), which is one of the components of the SNK, turns out to be an excellent additional source. It consists of 219.8 mils. Tokens in Slovak and 226.4 mils. Tokens in German (see Slovak-German Parallel Corpus).

### 6. Possibilities of using finished corpora to compile a terminology database

The German DWDS corpus was used in our terminology project as a confirmation tool

- to verify the existence of terms regarding several search results: and
  - to check the searched term as it relates to hunting.

Despite the problem related to the shallow text coverage of the subject in the corpora, while trying to use ready-made corpora as sources of information in specialized professional domains, the absence of the marginal occurrence of technical terms may indicate the need to include terms that have been verified in other subject-relevant sources (e.g., relevant specialized publications), in the terminology database. The terminology database should serve as a reliable source of information in which the meaning of a particular term from the relevant field of application is accurately defined. Sources have proved appropriate, including such terms in the database based on examining technical professional information. However, one cannot obtain more information from other commonly available sources (e.g., finished corpora). Therefore, their inclusion suits the purpose because they increase the information value of the terminology database, which in turn underlines its primary function as a reliable source of highly technical information.

To demonstrate such use of information from the finished corpora, we present a list of selected specialized terms from the field of hunting, such as cynology and game biology (see Tab. 2). Despite their significance in this field (evidenced by an analysis of specialized publications in print), they have minimal or even zero coverage in the DWDS corpus. The finished corpora are not technical enough to serve as an information source for narrowly focused professional texts. We used the DWDS-Kernkorpus (1900-1999) in our research. The selection parameters were restricted to filters, with search results from science and functional literature domains since the fields of fiction and journalism may include words and phrases with connotative meanings.

		I	Context/Relation	
		Search	to cynology of	
Order	Word in German	results	hunting and game	
		In DWDS	biology in DWDS	
1.	Apfelkopf	0	0	
2.	Anschneider	0	0	
3.	Beihirsch	0	0	
4.	Belton	0	0	
5.	Erdhund	0	0	
6.	Finderwille	0	0	
7.	Führigkeit	0	0	
8.	Halsung	0	0	
9.	Kahlwild	0	0	
10.	Nasenschwamm	0	0	
11.	Quersuche	0	0	
12.	Saufinder	0	0	
13.	Schleppfährte	0	0	
14.	Totsuche	0	0	
15.	Wasserarbeit	0	0	
16.	Grandel	1	1	
17.	Schmalspießer	1	1	
18.	Schusszeichen	1	1	
19.	Platzhirsch	2	1	
20.	Schmaltier	2	2	
21.	Welpe	2	2	
22.	Fallwild	3	3	
23.	Blender	9	0	
24.	Grind	9	0	
25.	Lecker	10	1	
26.	Rüde	11	2	
27.	Lauscher	12	1	
28.	Petschaft	18	0	
29.	Behang	22	2	
30.	Jagdhund	29	11	
31.	Drossel	36	1	
32.	Rosenstock	37	4	
33.	Abwurf	45	2	
34.	Totengräber	47	0	
35.	Blinker	71	0	
36.	Bast	104	3	
37.	Appell	405	0	

Order	Word in German	Search results In DWDS	Context/Relation to cynology of hunting and game biology in DWDS
38.	Härte	575	0
39.	Fahne	822	1
40.	Mönch	959	0

Tab. 2.: Corpus DWDS – selected specialized terms of hunting.

In the SNK (https://bonito.korpus.sk/), we were looking for Slovak equivalents, which confirmed a zero occurrence in the German DWDS corpus (DWDS-Kernkorpus (1900-1999) (see Tab. 3).

Word in German	Slovak equivalent	Search results in SNK	Context/Re lation to cynology of hunting and game biology in SNK
Apfelkopf	jablková hlava	0	0
Anschneider	načínač	1	1
Beihrisch	bočný jeleň	0	10
Belton	belton	11	0
Erdhund	brlohár	24	24
Finderwille	snaha hľadať	70	0
Führigkeit	poslušnosť psa	6	2
Halsung	obojok	1051	30
Kahlwild	bezparohá zver	0	2
Nasenschwamm	rhinárium	0	0
Quersuche	prehľadávanie terénu	2	0
Saufinder	diviačiar	4	4
Schleppfährte	práca na stope	0	0
Totsuche	dohľadávanie zveri	2	2
Wasserarbeit	práca na vode	4	1

Tab. 3: Corpus SNK – selected specialized terms of hunting.

The results confirmed that the occurrence of the term about the relevant context of hunting is shallow, which should theoretically suggest that those searched terms should be included in the termbase being processed.

Overall, our findings in hunting terminology show an imbalance in the number of relevant terms of hunting compared to German and Slovak professional hunting language. From this point of view, however, the problem seems to be simplified. The inclusion of a particular German term in the termbase should be based on the frequency of its use and the users' preference. Hunting terminology contains several synonyms which might be used in relevant contexts because the specialized vocabulary of hunting is not codified or extensively applied in oral form. The other problem is the pluricentric character of German. Slovak terminology has fewer terms and synonyms.

For example, the hunting dog (boar hunting dog) – Sauhund is used synonymously as Saurüde – used for pig hunting or catching wild boars. By searching other texts and documents in German, we stumbled across other semasiologically and onomasiological-related terms of Sauhund, such as Saupacker, Saufinder, Sauenvorsteher, which are characterized by additional semantic features with more predicates of the concept. We can find the distinctive parts of the dog's body and its use (function) in hunting. Those features give the original term of Sauhund several designations. However, there are no equivalent designations for Saupacker, Saufinder or Sauvorsteher in Slovak.

#### 7. Proposed procedure for creating a terminology database

Based on the above (theoretical) assumptions, we propose the following method for creating a terminology database that will be verified in the process of dealing with specific language material and updated, if necessary:

- Creating a conceptual apparatus of the relevant partial professional field (e.g., cynology, falconry, the biology of game, etc.).
- Searching for and extracting relevant technical terms and their definitions in German in reliable and available print sources.
- Searching for equivalents in Slovak, in available dictionaries.
- Searching for and extracting relevant technical terms and their definitions in Slovak in reliable and available print sources.
- Comparing the definitions of the source term in German to the assumed equivalent term in German.
- In the case of non-existing definitions, proposing their creation according to the standard and with approval by a professional authority.
- Verifying the meaning and frequency of the technical term in German through electronic sources.

- Verifying the meaning and frequency of the technical term in Slovak through electronic sources.
- Comparing the meaning of technical terms in German and Slovak.
- Searching and documenting proper contexts for a given technical term from authentic sources in German and Slovak.
- Consulting on the terminological record with a professional authority and updating it, if necessary.

In the final stage, the user should be able to directly export terminological records for term extraction, including CAT tools, e.g., SDL Trados Multiterm, MemoQ, with translation memory software, translation memory editors, terminology management software, review software, etc., used by translators. There are several other possibilities. Additionally, concerning the near future perspective, besides standard tools such as CAT or TMS, other disruptive technologies like *blockchain* (see How Blockchain Technology Can Reshape the Language Industry) may be considered in the following research stage of the terminology project with a focus on terminography.

#### 8. Conclusion

The elaboration of a terminology database is a complex process in which we need to consider theoretical starting points and various (practical) procedures. While examining the possibilities of using existing national corpora as information sources in compiling the hunting language terminology database, we have ascertained that the finished corpora can serve as a verification tool for providing input data for working with terminology in a narrowly specialized area. The corpora constitute a suitable complement and a good source of information. Therefore, terminology users must respect the principle of the diversity of technical resources in the overall process of elaborating a terminology database.

To sum up, the partial outcomes of the terminological project dedicated to the domain of hunting have shown us that using corpora may prove to be one of the ways how to determine the relevance of specific terms included in a database, used by a limited number of professionals.

The outcomes of our study support the corpora-based terminology work of any terminology-related project. Hence, it needs to be mentioned that the corpus-based approach towards terminology is not a one-way street. Therefore, the corpora can give its users benefits only

if they are fully aware of all their advantages and constraints and actively contribute to filling them with relevant language material (specialized texts for the balanced corpora) to the maximum extent. Plus, the connection of terminological datasets to the electronic tools mentioned above is another precondition for combining automated, efficient, fast, and multilingual data-driven terminology work processes. Though, this is still a challenge for language research and industry.

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#### References

- Červený, Jaroslav, Pavel Hell, and Jaroslav Slamečka. *Poľovníctvo.* Praha: Ottovo nakladatelství, 2019. Print.
- Česneková, Aurelia. *Poľovnícky slovník nemecko-slovenský a slovensko-nemecký*. Zvolen: ÚVVP LVH, 1995. Print.
- "Digitales Wörterbuch der deutschen Sprache. " Web. 17. Febr. 2021 <a href="https://www.dwds.de/">https://www.dwds.de/</a>>.
- "DWDS-Kernkorpus (1900-1999)." Web. 19. Febr. 2021 <a href="https://www.dwds.de/d/korpora/kern">https://www.dwds.de/d/korpora/kern</a>.
- "DWDS-Kernkorpus 21 (2000-2010)." Web. 19. Febr. 2021 <a href="https://www.dwds.de/d/korpora/korpus21">https://www.dwds.de/d/korpora/korpus21</a>>.
- Ferjentsik, Koloman. *Poľovnícky slovník*. Praha: Hubertlov Bohemia, 1999. Print.
- "Fodina\_Termograph." Web. 25. Febr. 2021 <a href="https://fodina.se/termograph/">https://fodina.se/termograph/</a>. Hell, Pavel. *Poľovnícky náučný slovník*. Bratislava: Príroda, 1988. Print.
- Herz, Jozef, and Juraj Ciberej. *Slovenské poľovnícke názvoslovie*. Bratislava: PaRPRESS, 2000. Print.
- Hoffmann, Lothar. *Kommunikationsmittel Fachsprache*. Eine Einführung. 2., völlig bearbeitete Auflage. Tübingen: Guter Narr Verlag, 1985. Print.
- "How Blockchain Technology Can Reshape the Language
- Industry." Web. 25. Febr. 2021 <a href="https://blog.csoftintl.com/blockchain-technology-reshape-the-language-industry/">https://blog.csoftintl.com/blockchain-technology-reshape-the-language-industry/</a>.
- ISO (2009): ISO 704: 2009 Terminology work: Principles and Methods
- ISO (2019): 1087: 2019 Terminology work and Terminology Science Vocabulary
- ISO (2011): 10241-1: 2011 Terminological entries in standards
- ISO (2019): 26162-1: 2019 Management of Terminology Resources Terminology databases
- "Jahresbericht. Jagd und Artenschutz." Web. 17. Febr. 2021 <a href="https://www.schleswig-">https://www.schleswig-</a>
  - holstein.de/DE/Fachinhalte/A/artenschutz/as 07 Jahresbericht.html>.

- Krenčey, Ivan. *Nemecko-slovenský a slovensko-nemecký poľovnícky slovník*. Bratislava: Vydavateľstvo Krenčey, 2007. Print.
- Kučiš, Vlasta, and Sanja Seljan. *The role of online translation tools in language education*. Babel. 2014, vol. 60, 3, pp. 303-324. Print.
- Lemnitzer, Lothar, and Heike Zinsmeister. *Korpuslinguistik*. Tübingen: Narr, 2006. Print.
- "MemoQ." Web. 25. Febr. 2021 <a href="https://www.memoq.com/">https://www.memoq.com/>.
- Munková, Daša, Oľga Wrede, and Jakub Absolon. "Vergleich der menschlichen, maschinellen und Post-Editing-Übersetzung aus dem Slowakischen ins Deutsche mittels automatischer Evaluation." *Zeitschrift für Slawistik* 64(2). (2019): 231-261. Print.
- Perkuhn, Rainer, Holger Keibel, and Marc Kupietz. *Korpuslinguistik*. Padeborn: Fink, 2012. Print.
- Preyer, Gerhard, and Peter, Georg. *Contextualism in Philosophy: Knowledge, Meaning, and Truth.* Oxford: Oxford University Press, 2005. Print.
- Roelcke, Thorsten. Fachsprachen. Berlin: Schmidt, 2010. Print.
- Sauberer, Gabriele. *Quality Assessment of Terminology Databases, Termbases, TermNet v02 2017-12-12*, 2017.
- Schulte, Jürgen. Wildtierkunde in Stichworten. Stuttgart: Ulmer, 2019. Print.
- "SDL Trados Multiterm." Web. 25. Febr. 2021 <a href="https://www.sdl.com/">https://www.sdl.com/>.
- Seibt, Siegfried. *Grundwissen Jägerprüfung.* Stuttgart: Franckh-Kosmos, 2017. Print.
- "Slovak-German Parallel Corpus." Web. 19. Febr. 2021 <a href="https://korpus.sk/skde\_en.html">https://korpus.sk/skde\_en.html</a>.
- "Slovenský národný korpus." Web. 19. Febr. 2021 <a href="https://korpus.sk/">https://korpus.sk/>.
- "Slovenský národný korpus. Nové hľadanie." Web. 19. Febr. 2021 <a href="https://bonito.korpus.sk/">https://bonito.korpus.sk/</a>
- Stinglwagner, Gerhard, and Ilse Haseder. *Das große Jagdlexikon.* Stuttgart: Franckh-Kosmos-Verlag, 2012. Print.
- "Structure of the Slovak National Corpus." Web. 19. Febr. 2021 <a href="https://korpus.sk/resen.html">https://korpus.sk/resen.html</a>.
- Šimková, Mária, Katarína Gajdošová, Beáta Kmeťová, and Marek Debnár. Slovenský národný korpus: texty, anotácie, vyhľadávania. Bratislava: Jazykovedný ústav Ľ. Štúra SAV, 2017. Print.
- Šimková, Mária, Katarína Gajdošová. Slovenský národný korpus: používanie, príklady, postupy. Bratislava: Jazykovedný ústav Ľ. Štúra SAV, 2020. Print.
- Šomek, Peter. Poľovnícky šlabikár. Bratislava: Šomek, 2019. Print.
- "Štruktúra korpusu prim-9.0." Web. 19. Febr. 2021 <a href="https://korpus.sk/prim(2d)9(2e)0.html">https://korpus.sk/prim(2d)9(2e)0.html</a>.
- "TermWeb 4." Web. 25. Febr. 2021 <a href="https://interverbumtech.com/products-services/termweb/">https://interverbumtech.com/products-services/termweb/</a>.
- "TermWiki." Web. 25. Febr. 2021 <a href="https://pro.termwiki.com/">https://pro.termwiki.com/>.
- "tlTerm" (aka TshwaneTerm). Web. 25. Febr. 2021 <a href="https://tshwanedje.com/terminology/">https://tshwanedje.com/terminology/>.

- Vyhnáliková, Zuzana. "Motivovanosť termínov v poľovníckej terminológii a motivačné faktory ovplyvňujúce vznik termínu." *Od textu k prekladu IX.* Ed. Alena Ďuricová. Praha: JTP, 2014. 240-254. Print.
- Weilandt, Annette. *Terminologiemanagement. Ein prozessorientierter Ansatz* am Beispiel der Automobilindustrie. Frankfurt am Main etc.: Peter Lang, 2015. Print.
- Wilkinson, Mark D.; Dumontier, Michel; Aalbersberg, IJsbrand Jan; Appleton, Gabrielle; et al. (15 March 2016). "The FAIR Guiding Principles for scientific data management and stewardship". *Scientific Data*. 18.September 2021 <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4792175/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4792175/></a>
- Wittgenstein, Ludwig. *Philosophische Untersuchungen*. Berlin: Suhrkamp, 1977 [1953]. Print.
- Wrede, Oľga, Jozef Štefčík, and Martin Drlík. Úvod do terminológie a terminologickej práce. Nitra: UKF, 2016. Print.
- Wüster, Eugen. *Die vier Dimensionen der Terminologiearbeit*. In: Mitteilungsbaltt für Dolmetscher und Übersetzer 2/15. März 1969, 1-16. "XTMCloud." Web. 25. Febr. 2021 <a href="https://xtm.cloud/">https://xtm.cloud/</a>>.

### AUFBAU EINER DEUTSCH-SLOWAKISCHEN DATENBANK DER JAGDTERMINOLOGIE

Das Ziel des vorliegenden Artikels ist es, terminologische Instrumente im Prozess der Erstellung einer deutsch-slowakischen Terminologie-Datenbank für Fachbegriffe aus dem Bereich des Jagdwesens vorzustellen. Das Augenmerk wird dabei auf Korpora und ihre Rolle bei der Erstellung solch einer Terminologie-Datenbank gelenkt. Als Verifizierungsinstrumente dienen die Nationalkorpora des Deutschen und Slowakischen, zudem wird das Prinzip der Diversität von vorhandenen Quellen berücksichtigt. Theoretische Ausgangspunkte bilden die Bereiche der Korpuslinguistik, Fachsprache, Terminologiearbeit und Semantik. Die Korpora werden nicht nur quantitativ, sondern auch qualitativ als relevantes Instrument erkundet. Das deutsche und das slowakische Nationalkorpus dienen als Indikator für selten-vorkommende Begriffe, die ein höheres Fachniveau an spezialisierten Lexemen voraussetzt. Der Ansatz des geringen oder Nullvorkommens in nationalen Korpora soll daher in die Terminologiearbeit und den Aufbau von Terminologiedatenbanken umgesetzt werden. Dabei werden das Deutsche Nationalkorpus – DWDS und das Slowakische Nationalkorpus (SNK) angewendet, kompariert und analysiert. Als Ergebnis der Analyse, welche mit konkreten Beispielen aus dem Bereich des Jagdwesens untermauert ist, wird abschließend Schritt für Schritt eine konkrete Vorgehensweise zur Erstellung einer terminologischen Datenbank für ein spezialisiertes Fachgebiet präsentiert. Durch Einbeziehung der Korpora in den Prozess der Erstellung einer Terminologie-Datenbank soll eine innovative Zugangsweise dargelegt werden, welche aktuelle Kenntnisse aus den Bereichen der Linguistik und der Terminolgiearbeit verbindet.

**Schlüsselbegriffe:** Terminologie-Datenbank, Jagdwesen, Deutsch, Slowakisch, Korpora, Terminologiearbeit