Introduction

The content of this paper should provide only the basic information about what should be taken into account before translating or forming new terminology in any scientific discipline based on a different classification system.

1 Terminology and Its Role in Scientific Disciplines

“Terminology is generally understood as a science about properties of terms, forming terms and using them” or [...] as a set of terms used in various spheres of science or manufacture.”

(Masár 1991, 17, trans. M. J.)

Despite many articles and books written about terminology there are still many people who without previous familiarizing themselves with the content of a particular term/terms, maybe as a result of frequent hearing it/them, use the term/s incorrectly, that is in unappropriate contexts. The incorrect use of terms can be observed on TV, radio but also in newspapers.

Though the term terminology itself evokes in many people something very important, there are still many of those who do not know what terms in general should represent or stand for or what is their role as being part of a particular classification system. The lack of general knowledge about what teminology is, can sometimes be observed not only with non-experts in any scientific discipline as well.

The ignorance of both the special role of terms and primarily their content can be observed in many fields of everyday life, namely in strange or unappropriate using terms in everyday situations. However, the role of terms is not to replace any word having a similar content with a term just for the purpose of one’s pretence of being “educated”. The incorrect use of terms in everyday life dialogues or on TV leads many times to comic situations, provided one of the interlocutors or viewers is familiar with the content of the particular term(s) and that is why realizes the humorous effect of the use of the term(s). Defect translation/ formation of terms can be proceeded not only by unsifficient knowledge in the respective scientific discipline but also by translator’s failure to consult the terms with experts. Many times the results of such an approach to the process of translating or forming new terms are calques evoking smiles but remaining in use anyway without any effort to both deal with the content incorrectness and to subsequently change the defect translation (at least in translator’s mother tongue). Consulting the terms with experts not only saves
a lot of time needed for studying the respective technical literature (familiarizing with the scientific discipline) but also prevents possible misunderstanding that can appear if translator is not sufficiently familiarized with the scientific discipline. Anyway, consultations with experts should proceed translating any unclear terms, provided the translator is not an expert himself.

2 Technical Literature

Before presenting some of the criminalistics terms, as stated in the title of this paper, I would like to present at first a definition explaining the substance of terminology in general. Being Slovak one of the first authors whose books, in connection with terminology, one will reach out for to study is certainly Ivan Masár. In one of his books he states that “it is not methodologically correct to evaluate and research any term isolatedly, but properties of the term can only be found out when the term is researched as an element of a particular system” (Masár 1991, 43, trans. M. J.).

Many of those who deal with translating either professionally or just in cases of their employer’s or colleague’s friend’s need certainly know the situation when it is necessary to translate “just” three or five terms with the demand to translate the terms within the “deadline” of one day (which is the better case) or even two or three hours. One is suddenly facing helplessly not only the terms themselves but also the time “provided” for the translation of the terms. I have used the adverb helplessly because it is really difficult to translate texts, even very short ones, containing “only” several terms, and preserve the content of the notions of the terms, when one is not familiar with the particular scientific discipline. Many times, as a result of time pressure, calque(s) are preferred though such a procedure does not necessarily mean non-quality results. Anyway, the opposite is more frequently true.

Translation of any terms or technical texts should be proceeded by familiarizing with technical literature of the respective scientific discipline, both in translator’s mother tongue and the respective foreign language. This is a well known condition that is nevertheless (maybe as a result of sufficient amount of technical dictionaries) many times “forgotten” or not taken into account. However, “It is not methodologically correct to evaluate and research any term isolatedly [...] but as elements with both a particular function in the technical language and a stable position in the definite system of terms” (Masár 1991, 43, trans. M. J.). The second part of this quotation shows the importance of taking into account the classification system (on the basis of studying technical literature) of the respective scientific discipline and the position of individual terms in the system when translating the terms or forming new ones.

2.1 Consulting Classification System

Familiarization with the classification system, supported by consultations, represents one of several conditions that should be followed in cases of translating or forming new terminology. Possible classification system differences are reflected in the
necessity to translate or form new terms. Such a necessity can also appear as a result of a scientific research in one’s mother tongue. In cases of classification system differences, as translators can not be regarded as experts in a particular scientific discipline (except experts themselves translating from and into a foreign language), consultations with experts are an indispensible part in the process of translating or forming new terms that are not part of a respective technical dictionary yet. The consultations with experts should provide a better look at the individual terms in a classification system and remove possible uncertainties in a particular field of a scientific discipline. However, consultations are not always a regular process proceeding translating any terms. The situation is like that usually in cases of some relatively frequently translated scientific disciplines, which is also supported by a rather wide choice of foreign language technical literature and dictionaries on the market.

2.2 Definition

On the basis of knowledge gained from technical literature, both in mother tongue and the respective foreign language, what follows is content comparison of the terms we consider to be equivalents. In the event of classification system differences resulting in the absence of some terms, the first step to be taken before starting forming new terms is definition that is familiarizing with and understanding the definition. No new terms should be formed without previous familiarization with the definition of their notions, or as I. Masár states: “Definition is the aim of any terminological unit that is necessarily based on a notion and leads to a name. The role of a definition is to provide basic information about the notion. Definition should express features the respective notion is defined by and the position of the notion in the system of notions.” (1991, 64, trans. M. J.).

3 Criminalistics

Presenting some results of my research necessitates presenting the scientific discipline itself at first. Slovak criminalistics is theoretically supported by many scientific works and definitions referring to the substance of this interdisciplinary science. However, the definitions are very extensive (containing a lot of new terms necessary to be explained), that is why I have decided to present just two definitions, namely a very short Slovak definition translated into English (however providing the basic information concerning the terms presented in this paper) and an English definition found in the Internet and consulted with an expert for the purpose of confirming the content equivalence.

Definition 1
Criminalistics is a science about ways and possibilities of finding, collecting, preserving and examining physical evidence necessary for the purpose of solving crimes, seizing offenders and looking for ways of how to prevent crimes.


Definition 2

Criminalistics, also known as forensic science, is the application of scientific principles to provide evidence in criminal cases. Students in forensic science programmes learn how to collect crime scene evidence, prove the causes of accidents and test crime scene evidence in labs. General course topics include crime scene investigation, drug analysis, genetics, physics and organic chemistry.


3.1 Componential Analysis

In connection with the componential analysis and definitions in part 3 this paper will be dealing with only one notion being represented by hyperonymic classifiers in Slovak, German and English respectively, namely kriminalistická stopa, Spur and crime scene evidence, also referring, in this paper, to some basic hyponymic units and collocations. As criminalistics is a science whose frequency in translatology research is, in the imaginary corner in comparison to the sciences of e.g. law, economics, medicine..., I find it necessary to offer several visual examples that should not only provide imagination of the terms primarily motivated by resemblance but should at the same time support my translation solutions/proposals. Individual notions are paralelly presented into Slovak, German and English languages respectively.

nosič kriminalistickej stopy vs Spurenträger vs medium of physical evidence

Nosič stopy refers to any object, animate or inanimate, on the surface of which there is physical evidence. The animate object can be represented by e.g. desk, door, window, knife, gun, wall, car interior etc., however physical evidence can also be found on animate objects, (human body); in this case physical evidence can be the result of for example strangling that is fingerprints remain on human body.

Figure 1 kriminalistická stopa na mäkkom povrchu/Spur auf weicher Oberfläche/physical evidence on a soft surface.
The terms *nosič kriminalistickej stopy* (Slovak), *Spurenträger* (German) and *medium of physical evidence*, contain two of the basic and very important semantic features of componential analysis, namely: [+ animate] or [− animate]; that is, physical evidence can be found not only on any inanimate object but also on human body [+ animate]. The presence of either semantic feature is necessary for any object to be referred to as a *medium of physical evidence*. In case of the Slovak term *nosič stopy*, German term *Spurenträger* and the English term *medium of physical evidence* we talk about equivalents. The only difference among these equivalents consists in their lexical representation and the position of their onomasiological base:

*nosič kriminalistickej stopy* – genitive case lexeme

- *nosič* (derivate/substantive, onomasiological base),
  - [+ ]
  - *kriminalistickej stopy* (GEN: adjective + noun → onomasiological mark)

*Spurenträger* – compound lexeme:

- *Spur* (substantive, onomasiological mark),
  - [+ ]
  - *Träger* (derivate, onomasiological base),

*medium of physical evidence* – genitive case + compound lexeme:

- [+ ]
  - *physical evidence* (GEN: adjective + substantive → onomasiological mark),
  - [+ ]
  - *medium* (substantive, onomasiological base).

In all the three terms, i.e. *nosič kriminalisticých stôp*, *Spurenträger*, *medium of physical evidence*, the presence of the basic semantic features can be seen, namely [+ animate] or [− animate]. Presupposition for the existence of these two features is any surface on which physical evidence is found or, more exactly, representation of the surface either by human body [+ animate] or inanimate material [− animate] of any nature. Though a lot of people would certainly mention the presence of at least one more semantic feature, namely the one referring to the texture of the medium, e.g. [+HARD], e.g. glass, [+SOFT], e.g. wax, [+HARD]/[+SOFT], e.g. soil, in this stage of criminal investigation such features are not important. What is important is the presence of physical evidence on a surface. Dimensionality that could be referred to by the semantic features concerning texture or more technically referred to as 2D-effect or 3-D effect will be discussed in part 3.1.1.
All the three discussed terms represent equivalents which is supported by analogy of the following examples bearing similar meaning:

**zvukový nosič** – zvukový (adjective, onomasiological mark)
+ nosič (derivative, onomasiological base),

**Tonträger** – compound lexeme:
  *Ton* (substantive, onomasiological mark)
+ *Träger* (derivate, onomasiological base),

**sound storage medium** – compound lexeme:
  *sound* (substantive, onomasiological mark)
+ *storage* (substantive, onomasiological mark)
+ *medium* (substantive, onomasiological base).

The notion of the onomasiological bases of the terms discussed above, namely *nosič, Träger, medium* shows their ability to bear some kind of physical evidence. The three examples represented by sound, namely *zvukový nosič, Tonträger, sound storage medium* can represent physical evidence themselves (physical evidence found on the surface of the medium) or the content of the sound storage medium bears important information in favour of solving a criminal act.

### 3.1.1 Dimensionality as Semantic Feature

Another semantic feature influencing the choice of lexical units (formation of new terms) is DIMENSIONALITY. The presence of this semantic feature refers to two terms and makes it possible to distinguish between two kinds of physical evidence, namely one represented by two dimensions (2D) and the other represented by three dimensions and offering 3D-effect (See Figures 2 and 3).

![Figure 2](image)
**Figure 2**
2D-effect
odťačok obuvi (Slovak)/Schuhabdruck (German)/footwear print/shoeprint

![Figure 3](image)
**Figure 3**
3D-effect
vťačok obuvi (Slovak)/Schuhindruckspur (German)/footwear impression
2D-effect — odtlačok obuvi/Schuhabdruck/footwear print/shoeprint
3D-effect — vtlačok obuvi/Schuh eindruckspur/footwear impression

The reference to or semantic feature of dimensionality is present in the morphemes, namely: 2D-effect is present in the prefixal morphemes od- (odtlačok), ab- (Abdruck), whereas the English lexeme print represents itself a mark left on a surface where something e.g. a foot has been pressed without leaving a 3D-effect on it.

3D-effect is present in the Slovak prefixal morpheme v- (vtlačok) and the German prefixal morpheme ein- (Eindruck); the German compound term is added by the root morpheme Spur. In case of the English criminalistic term impression the lexeme itself expresses “a mark left by pressing an object hard into a surface” (Oxford, 1995, p. 597). In this stage one can object to the relativeness of the three dimensional effect depending on the surface and the originator of the physical evidence. A heavy object fallen on a heavy surface presupposes a small probability of making an impression, in such cases objects leave marks resembling some kind of scratches.

The terms above representing physical evidence are specified by lexemes referring to the originator, e.g. shoe/footwear. The word formation typical of the languages discussed here can be followed in parallel examples such as vtlačok ruky, vtlačok pneumatiky, Handeindruckspur, Reifeneindruckspur, hand impression, tyre impression.

The dimensionality must be both reflected in the terms naming extra linguistic reality and must be based on definitions taking into account this fact. Though laymen may find it useless to deal with the finenesses of 2D- or 3D-effect as according to their opinion, what is important for a judge deciding about life of an accused person is the presence/absence or confirmation/rebuttal of the presence of particular physical evidence. Introduction of such a layman opinion into science, into any scientific discipline would result in a complete communication chaos. To say nothing of various conferences and seminars organized in favour of knowledge enhancement for crime scene technicians. The terms should provide error-free communication and understanding of any context of a particular scientific discipline. The terms of
physical evidence must not be replaced by words of similar notion taken from some films, as films are usually a matter of entertainment. They are only seldom a matter of education. That is why they usually can not provide an authoritative source in the process of forming new terms.

The factor of DIMENSIONALITY that is present in physical evidence should also be present in a term referring to “lines” on the skin of palms or soles of man or anthropoid. Slovak criminalistics works with the term papilárne línie – papillary lines referring to both “lines” present on the skin (See Figure 5) and “lines” of the skin as pressed onto a medium of physical evidence thus forming a print or an impression (See Figure 6). On the surface of skin there are protuberances (3D-effect) that makes it possible after pressing the skin onto a medium to print their individually shaped form (ridges) and thus offering a unique print. Though the Latin attribute papillary referring to/ standing for the perturbances provides or assures the presence of the 3D-effect in a term, the problem is the use of one and the same term, i.e. papilárne línie (papillary lines) as a reference to two notions, which is not a sign of error-free communication. This fact is in practice solved by genetive case, i.e. papilárne línie odtlačku vs papillary lines of a print or local case, i.e. papilárne línie na koži vs papillary lines on the skin.

The problem of using one and the same term for naming two notions can be solved by introduction of a term clearly distinguishing between two notions without any need for using genetive or local cases for the purpose of distinguishing the notions (See Figure 6).

The process of translating or forming new terms is not a short one. It should be proceeded by other steps to be taken in favour of forming as good terms as possible.

Works Cited
Summary
The Importance of Componential Analysis in Translating or Forming New Criminalistics Terminology

When forming new terminology, not only on the part of experts in a particular scientific discipline but also in case of forming pendants in a target language in the particular scientific discipline by translator the attention should be devoted both to componential analysis and properties that should be present in the terminology. The necessity of both the use of the componential analysis and the presence of the terminology properties is even more important in case of terms motivated by appearance, which is typical of the scientific discipline of criminalistics.

About the Author

The author of this paper is currently in the 1st year of the external PhD programme at the Institute of translation and interpreting of the Faculty of Arts in Prešov. In her PhD thesis the author deals with criminalistics terminology primarily focusing on dactyloscopy.