Russian-German medical communication and specialized translation

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Abstract

The Covid-19 situation has especially clearly shown the vital importance of intercultural communication, interethnic relations and exchanges. Effective professional activity and cooperation between representatives of different nations depends on the accuracy and correctness of translation algorithms that allow breaking down communication barriers. Given the importance of acquiring and transmitting of new notions, knowledge and linguistic creativity for conceptualizing, this feature must be leveraged in Terminology and is a relevant issue for the Specialized Translation. This paper describes a German-Russian medical terminology project promoted by two Spanish universities for meeting the increasing demand for efficient terminological resources and medical communication, especially important in the COVID-19 times. Multilingual terminological management in this study is intended to help non-governmental medical organizations in their humanitarian activity due to their more extensive, sacrificial and hard work with migrants and in remote regions. The correct communication between the doctor and the patient is of vital importance. Furthermore, the times of the pandemic require greater collaboration between organizations, doctors, researchers, scientists, specialized translators and communication media.

Keywords: knowledge-Based Terminology, medical translation, terminology management, multidimensional conceptualization

1. Introduction

The Covid-19 situation has especially clearly shown the vital importance of intercultural communication, interethnic relations and exchanges. Effective professional activity and cooperation between representatives of different nations depends on the accuracy and correctness of translation algorithms that allow breaking down communication barriers. Given the importance of acquiring and transmitting of new notions, knowledge and linguistic creativity for conceptualizing, this feature must be leveraged in Terminology and is a relevant issue for the Specialized Translation in medical field.

Every specialized knowledge is more complex and has a higher abstraction degree than general knowledge of the world. From an ontological point of view, diseases and medical disorders depict complex abstract notions, especially for people external to the medical field. Notwithstanding this, health and concepts related to health are

present throughout the whole life of the individual, so it is unavoidable that individuals come across diseases and medical disorders experienced by either themselves, their close family and friends or their acquittances. Hence the need for their mental lexicon to assimilate and store this specific form of specialized knowledge, and for communication to be efficient. According to the Wall Street Journal, 80% of medical error is due to communication problems between the doctor and the patient. It´s why it is important to investigate in terminology.

In June 2018, the Terminology Coordination Unit (TermCoord hereafter), one of the units belonging to the Directorate-General for Translation of the European Parliament, launched a new project in medical terminology. This project was intended to supply Médecins sans frontières (MSF) with a dedicated terminological database in the area of medicine so that the organization could provide the healthcare professionals working in the field a resource facilitating communication between doctors and nonexperts. The goal of this resource is to use it in field missions and emergency situations.

TermCoord was launched in 2008 in response to the increasing need for a team dedicated to coordinating terminology and acting as a central reference for terminology all throughout the institutions. Given the public role of the European Parliament as an institution of the European Union and its degree of importance as an actor in the democratic arena, during its decade of existence this unit has initiated several projects involving external institutions (such as universities and other international organizations) and other actors (such as professional associations) to help serve the public role of the institution to which it belongs.

YourTerm Medical *(https://termcoord.eu/yourterm-medical/)* is the first of a series of projects to serve the public need of bringing together professionals and nonexperts in specialized fields, but since this is the first project and all subsequent projects will be based on it, the object of the present article is the YourTerm Medical project only. As for this project, apart from TermCoord several other institutions are involved. On the side of non-governmental organizations, contacts have been initiated with MSF and with Translators Without Borders, a non-profit organization created to provide linguistic services to organizations such as MSF. On the side of universities, the Paris-Diderot University in France and the Pablo de Olavide University, the Valencia International University and the University of Granada in Spain are involved, with both professors and students participating in terminological research for the project. The project is currently open-ended, with no set date for closure.

As mentioned before, the main aim of the project is the construction of a multilingual terminological database for the use of MSF. A first batch of terms was gathered in English as a base for working towards other languages, and then other languages were included, namely: Portuguese, Spanish, French, German, Italian, Greek, Arabic and Russian.

For the purposes of this article, we describe the development of the German-Russian part of this database as well as the theoretical basis upon which the terminological research is being carried on. An analysis of the properties of a selection of terms was carried out on the cognitive level to show their way of conceptualization and conceptual relations in order to highlight the dimensions (i.e., signs and symptoms, body part affected and other conceptual connections upon which users base their choice for terms) that are useful for approaching the communication between doctors and non-experts (i.e., patients for that matter). Given the importance that Cognitive Linguistics has acquired in the last decades, and that new theories in Terminology are currently being developed based upon the premises of Cognitive Linguistics, all these theories play a central role in the theoretical background of our approach to medical terminology and translation.

As seen above, multilingual terminological management in this study is intended to help non-governmental medical organizations in their humanitarian work due to their more extensive, sacrificial and hard work with migrants. MSF handed actually, for example, over *tuberculosis* (TB) activities, mental health and cardiac care in Chechnya and started a new collaboration in northwest Russia. Since they set up the program in Chechnya in 2004 to treat patients with drug-sensitive TB in close cooperation with the Chechen Ministry of Health, MSF signed in May 2018 a memorandum of understanding with the regional Ministry of Health of Arkhangelsk oblast. MSF also attends the migrant's waves arriving in the European Union, for example in Germany, where there are many migrants, also from the former Soviet republics. This German-Russian medical terminology project was promoted by two Spanish universities on for meeting the increasing demand for efficient terminological resources and medical communication, especially important during the COVID-19.

2.   Theoretical Framework

In this section we will be explaining the different cognitive approaches underlying the project.

2.1   *Cognitive processing of terms: Cognitive Linguistics in motion*

According to Cognitive Sciences, to help with the acquisition of abstract concepts from new domains of knowledge, human beings use their perceptual experience (that is, experience acquired via their senses) and their previous knowledge of the physical world, acquired from other domains already known to them. The mental structures generated from perceptual experience and previous knowledge are used to conceptualize a new domain (Barsalou 2008). This supports linguistic creativity and provides a powerful tool for conceptualization (i.e., creation of a new concept in the mind).

Since a user cannot always focus on all dimensions of a concept, especially when this concept is new for them and/or the concept is complex, it is a common mental device for any user of a given language to focus only on those dimensions that are relevant for them. This is related to the phenomenon of multidimensionality, which, according to Bowker (1997), is present when one concept can be classified in different ways instead of only one. These ways will be determined by the characteristics it possesses (Bowker 2006). The way the concept will be classified will depend

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on the dimensions (i.e., the characteristics from a cognitive point of view) activated when the user encounters the concept for the first time or uses the term repeatedly according to their needs. Hence, the complexity degree of a concept requires a higher cognitive creativity and increases when multiple dimensions are activated for different users or even for the same users generating terminological variations, and along with it the fields into which a new concept can be categorized increases as well. This phenomenon is one of the factors influencing communication between doctors and patients, since each side will be focusing on different dimensions of the concept being discussed duringprofessional consultation.

2.2. Metaphors

Going back to the cognitive processing of new concepts, a common resource for understanding and conceptualizing new knowledge is the usage of metaphors as the most significant representation of linguistic creativity in human beings. According to Lakoff (1993), metaphors are not only a rhetoric device, but they also show how an individual conceptualizes one domain based in their knowledge of another domain, i.e., establishing conceptual relations between different fields of knowledge. In metaphors, a feature of the source domain is projected onto a target domain in such a way that, even though the dimensions projected may not be present in the target domain by themselves, they allow users to grasp some feature of the target domain through their knowledge of their source domain. An example of medical term with a metaphorical origin is *cancer:* the term comes from Latin *cancer,* a term derived from Greek *καρκίνος* (karkinos) meaning «crab», due to the physical resemblance of malignant tumors to the extended legs of a crab (Salaverry 2013).

Therefore, metaphors are useful to view the structure and organization of cognition and can provide linguistic researchers with information about the dimensions of a concept that are activated in the mind of the users. As will be shown later in this paper, metaphors in Health Sciences can concern both the denominations of diseases and the denominations for signs and symptoms, which are the main motor factors in the first stage of the project, because a disease denomination can reflect a relevant specific dimension activated when this disease is conceptualized in the human mind. A metaphor in a denomination contributes to consolidate the denomination for a disease by reflecting the conceptualization pathways of the abstract notion, and it may suggest the dimensions activated when the disease is first conceptualized. Hence the need for a structural analysis of the dimensions activated in order to trace the cognitive pathway towards knowledge organization.

From this we can infer that, in medical terminology, metaphors from which new medical terms are created offer us a hint of the cognitive pathway that the human mind went through in order to conceptualize and designate one disease and/or certain characteristics of the disease such as signs and symptoms.

2.3. Frame-Based Terminology

Frame-Based Terminology (Faber 2006, Faber 2010 and 2015, Faber et al. 2017) (FBT hereafter) is a theory developed in the framework of Cognitive Linguistics and the most recent theories gaining traction in the field of Terminology, namely the Sociocognitive Theory of Terminology and the Communicative Theory of Terminology. It is mainly based in Frame Semantics, a theory developed by Charles J. Fillmore (1976, 1985, 1987). According to Frame Semantics, a frame is a system of concepts related in such a way that for understanding a single concept the user needs to understand the whole structure it fits in (Fillmore 2006). Subsequently, one of the precepts established in FBT is that for understanding the concept conveyed by a term, users need to understand the whole conceptual structure to which it is ascribed as per the dimensions activated in their mind. This is related to situated conceptualization or activated event (Barsalou 2003). Notwithstanding this, the notion of frame in FBT has evolved to encompass the structure of specialized knowledge units and their roles in specialized subject domains (Faber 2015), and now a frame can be defined as a universal, flexible, cognitive structure that does not depend on a specific language or domain and that is salient due to the dynamism inherent to language. One of the advantages of FBT is that frames as a cognitive structure are universal both for their multilingual use and their use in specialty domains.

Within a frame, we can structure all elements concerning a concept following a top-down approach where the upper level is the event. In one of the first applications of FBT, a multilingual terminological database on the environment was built, EcoLexicon (Koreneva Antonova 2017). An event that is prototypical of the area was developed for this purpose. In this environmental terminology project, an event contains several macrocategories allowing to structure any concept as a PROCESS initiated by an AGENT (either natural or artificial) on a PATIENT in a PLACE and with a specific RESULT. Therefore, the macrocategories are PROCESS, AGENT, PATIENT, PLACE, and RESULT. Concepts are structured via conceptual relations: *caused_by, affects, affected_by, has_result, located_by,* etc. Even though this event was developed for research in environmental terminology (and hence named *Environmental Event)*, its premises can be applied to other knowledge areas as well, as we did. So, a specific event was created for conveying medical concepts, and this event was called *Medical Event,* for the purposes of our project.

These frames also allow terminologists to build knowledge-based terminological databases. These databases are next generation termbases where a cognitive approach is used so that they can be used in specialized communication. Their structure is close to the human mental lexicon structure, and most specifically the mental lexicon which is proper to experts in the field, as supported by experimental psycholinguistic studies (Faber et al. 2017, Koreneva Antonova 2017).

According to the main proponent of the FBT, Pamela Faber (2010), a static database with a list of unrelated entries cannot be a terminological resource for knowledge acquisition. This is because unstructured knowledge does not allow users to access and use information effectively. Hence why we decided to create a database containing the conceptual relations that will be explained in section 3, Methodology. Even though conceptual relations are useful specially for linguists (and most specifically translators and terminologists), these conceptual relations can contribute to create a terminological database where retrieval of terms and concepts is

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facilitated via the organizational structure established by following these relations.

In FBT, conceptual relations give rise to conceptual networks established among all concepts within a frame, in the form of an event. An event is a process in which elements pertaining to a certain conceptual structure are stored in our memory and retrieved from it. For the purposes of our study, we defined what we call *Medical Event.* This is explained in detail in section 3, Methodology.

2.5. *Terminological variation and multidimensionality*

Terminological variation is an additional challenge for users, as well as for translators and terminologists when managing terminology. Terminological variation is a form of denominative variation that affects specialized terms and that refers to the fact that different terms are used to designate the same concepts (no conceptual variation in this regard) (Fernández Silva & Kerremans 2011).

This is because different dimensions are activated according to the user's perspective. Terminological variation gives rise to the need of understanding better the structure of the activated dimensions. Terminological variation can give rise to both intra and interlingual levels.

It must be noted the relation between terminological variation and multidimensionality. Given that multidimensionality involves the activation of different dimensions for designating a concept, these dimensions must be defined so that we can determine which of them are activated in the mind of a user according to their previous knowledge and their expectations.

3. Methodology

3.1 *Study of the areas of interest for MSF*

YourTerm Medical was conceived as a project in several stages. Given that the primary beneficiary of the project was the non-profit organization MSF, the team studied their main areas of interest as publicly stated in their website and their promotional materials. The priority areas were the following:

• Infectious diseases and

• Neglected diseases.

Even though these two are featured in different sections of the organization's website, several diseases are included in both sections, hence why we include them both as an individual area for the purposes of this article.

These main areas served to determine that diseases and disorders were to be the main organizational criterium of the database that was to be built.

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3.2 Initial construction of the database

Once the main areas of interest were defined, diseases and disorders were selected along with their signs and symptoms to build a terminological database. The selected diseases and disorders were classified in three main categories: Infectious and Neglected Diseases. It should be emphasized that many clinical studies show the reactivation of neglected desease.

Table 1

Relevant infectious and neglected diseases.

ENGLISH TERM	GERMAN TERM	RUSSIAN TERM
AIDS (Acquired Immunodeficiency Syndrome)	das Humane Immundefizienz-Virus (HIV)	Ви́рус иммунодефици́та челове́ка (ВИЧ)
Buruli ulcer	Buruli-Geschwür	Язва Бурули (ЯБ)
Cervical cancer	Gebärmutterhalskrebs	Рак шейки матки
Chagas disease	Chagas-Krankheit	Болезнь Шагаса
Cholera	Cholera	Холера
Chykungunya	Chikungunyafieber	Вирус Чикунгунья
Cytomegalovirus retinitis	*Cytomegalovirus (CMV) Retinitis*	Цитомегаловирусный ретинит
Ebola haemorrhagic fever	hämorrhagisches Ebolafieber	геморрагическая лихорадка Эбола
Hepatitis C and E	Hepatitis C und E	Гепатит С и Е
Kala azar or Visceral leishmaniasis	Kala azar, Leishmaniose oder Leishmaniase	Лейшманиоз, кала-азар
Malaria	Malaria	Малярия
Marburg haemorrhagic fever	Marburgfieber	Геморрагическая лихорадка Марбург
Measles	Masern	Корь
Meningitis C Meningitis W135	Meningitis C Meningitis W135	Менингит С Менингит W135
Sleeping sickness	Schlafkrankheit	Сонная болезнь
Tuberculosis	Tuberkulose	Туберкулез
Yaws	Frambösie	Фрамбезия
Yellow fever	Gelbfieber	Желтая лихорадка

3.3 Structure of the database according to the precepts of Cognitive Terminology and FrameBased Terminology

The project team based the conceptual structure of the database around a Medical Event, which is a prototypical and universal representation of how information about diseases is stored in memory.
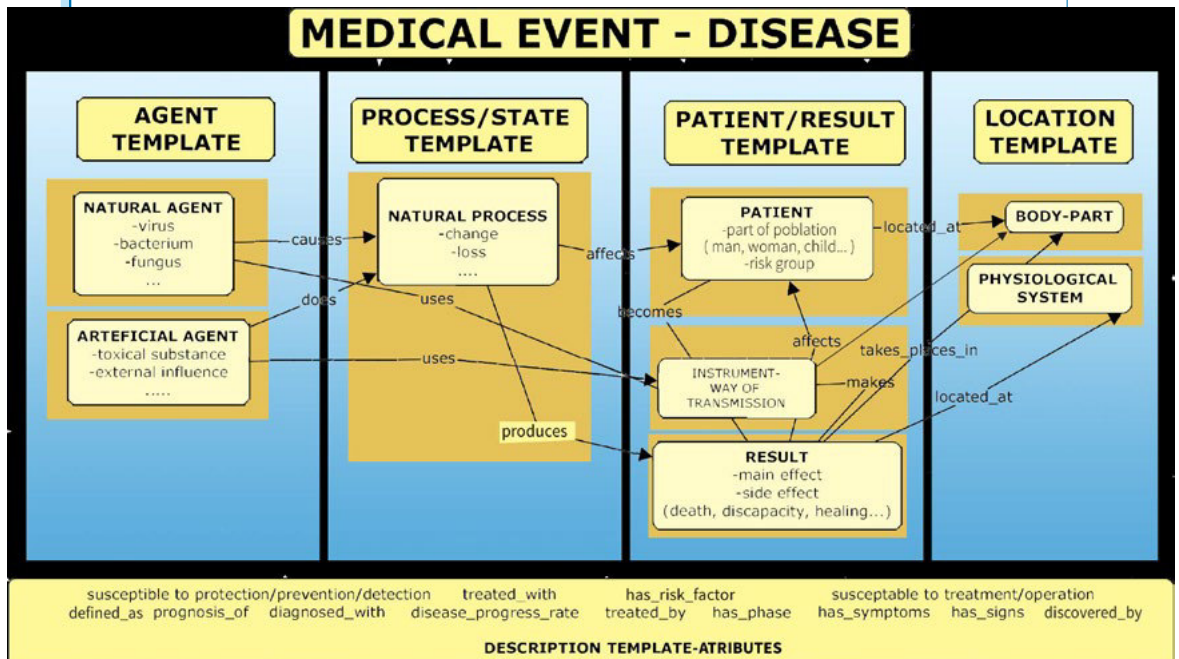
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Figure 1. Graphical depiction of Medical Event (Boлнvar & Koreneva 2018)

According to this structure, the presence of the following macro-categories and the activating corresponding conceptual relations can be observed: A disease is a PROCESS *located_in* a BODY PART or a PHYSIOLOGICAL SYSTEM, with a RESULT, *initiated_by* an AGENT (natural: virus or artificial; *affects/caused_by*) on a PATIENT *(affected_by)*, that shows a set of SYMP-TOMS (where the conceptual relation for every symptom is *has_sympmp-tom*), and which can be *treated_with* TREATMENT. The DESCRIPTION TEMPLATE offers additional conceptual information about the disease, such as *defined_as*, *has_phases*, *has_prognosis*, etc. reinforcing the rep-resentation of the disease as a PROCESS, because it features phases and evolution. The database created for the project contains columns corre-sponding to disease, symptoms, affected body part and treatment, struc-tured in such a way that equivalents for different languages are easily retrieved.

For exemplifying the use of the Medical Event, we explain it for the term «hepa-titis». Etymologically this term is derived from ηπατος («hēpatos», Greek for «liver») and ιτις («-itis», which is used as a suffix and means «inflam-mation»). The composite lexeme «hepatitis» can thus be rendered as «liver inflammation», and the Medical Event can be rendered as follows:

INFLAMMATION (PROCESS) *caused_by* VIRUS (AGENT) *affects* LIVER (BODYPART).

For the purposes of this article, in order to show the creativity of different languages in the designation of diseases and the differences between denominations in western medicine and local denominations in the

countries where these diseases are prevalent, an analysis of several instances from the database that were most significant is included below.

Kala azar

The term «kala azar» comes from Hindi, one of the main languages of India. It is a term meaning «black fever» due to the presence of fever and the black color of the skin, which is a visibly typical feature of this disease (Picado 2013). Hence, the semantic field color», with the use of «black». is the source domain for the target domain «disease». At the same time, this color feature also represents a symptom of the disease which is distinct enough to determine the origin of the designation for the disease. This approach is suggestive of the prevalence of the conceptual relation *has_symptoms* and the Medical Event macro-category SYMPTOM for the initial conceptualization and subsequent denomination the disease, a conceptualization where two dimensions are activated, color and body temperature. This is the Medical Event conveyed by the term «kala azar»:

PERSON (PATIENT) *has_symptoms* BLACK COLOR/FEVER (SYMPTOM) *affects* SKIN/IMMUNITARY SYSTEM/ORGANISM (BODY PART)

Another denomination for this disease, which is the established denomination in western countries, is «visceral leishmaniasis» (World Health Organization 2018). This denomination comes from the name of the genus encompassing the protozoan parasites that cause the disease, *Leishmania* spp. The component «Leishmania» for the genus comes from the last name of one of the discoverers of leishmaniasis origin, William Boog Leishman. Here we can see that, contrary to the popular denomination in India, conceptualization is related to the principle of activation of disease origin. The denomination of the species causing the disease follows the conventions of naming in Biology, which are governed by etymological rules commonly used in the scientific community, where components for naming species follow the rules of Greco-Latin formation of new terms according to a well-established biological nomenclature system. The name of the species is later transferred to the denomination for the disease in the activation of a new conceptual relation designated *discovered_by*. The Medical Event conveyed by the term «visceral leishmaniasis» is as follows:

LEISHMANIA SPP. (AGENT) *causes* PATHOLOGICAL PROCESS (PROCESS) that *affects* VIS-CUS (BODY PART)

We can see similar denomination indicating the same conceptualization in German and Russian: *Kala azar/кала-азар*, *Leishmaniose*/Leishmaniase/ лейшманиоз.

Chikungunya

In the Kimakonde language —a language spoken by the Makonde ethnic group, which lives in Southeast Tanzania and Northern Mozambique— the term «chikungunya» means «to become contorted» (World Health Organization 2017). This denomination describes the usual view of sufferers bent over themselves due to extreme joint pain. As with kala azar, this physical experience represents one of the most salient features of the disease, which contributed to its conceptualization according to a mental metaphor (that is, the contortion corresponding to the macrocategory SYMPTOM and activating the conceptual relation *has_symptom*), that becomes the designation for

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the disease itself. The Medical Event etymologically conveyed by the term «chikungunya» is as follows:

PERSON (PATIENT) *has_symptom* CONTORTION (SYMPTOM)

Since the term foreign chikungunya held no meaning for the German and Russian speaker, an additional conceptual dimension is added in every language to facilitate understanding of the phenomenon. Here we can see the conceptual differences in German and Russian: *Chikungunyafieber* and *Вирус Чикунгунья.* While the German focuses on the symptom:

PERSON (PATIENT) *has_symptom* FIEBER/FEVER (SYMPTOM),
the Russian language focuses its conceptualization on the AGENT category:
AGENT (ВИРУС/VIRUS) causes INFECTION (PROCESS).
Here we can see the multidimensionality of the human conceptual processing.

Yellow fever

The denomination for this disease is because, in the second stage of the disease, patients suffer from fever and from a yellow coloration of the skin and the white of the eyes called *jaundice*. This coloration is due to high levels of bilirrubin (a compound generated during metabolism). Again, as with «kalaazar», two dimensions are activated, a symptom related to body temperature and color. Therefore, the Medical Event for «yellow fever» is:

SKIN (BODY PART) / EYES (BODY PART) *has_symptom* YELLOW COLOR/FEVER (SYMPTOM)

This coincides with the conceptualization in German and Russian, despite the different origins of those languages: *Gelbfieber* and *Желтая лихорадка.*

Finally, for exemplifying the conceptual relations explored in the framework of our Medical Event and used for building the database we offer a table of concordances for «yellow fever». These concordances are extracted from an *ad hoc* corpus created for this purpose. By doing the same conceptual analysis of terms in other languages related to a certain concept and by identifying the conceptual relations underlying terms in those other languages, the multilingual terminological equivalence is guaranteed.

Table 4

English concordances and conceptual relations for «yellow fever»

1	Yellow fever is a viral disease of typically short duration. In most cases, symptoms	*is_a* (TYPE OF)
2	Yellow fever is an acute viral **haemorrhagic disease** transmitted by infected mosquitoes.	defined_as (DEFINITION)
3	For some people, however, yellow fever **causes fevers, chills, aches, bleeding, yellow eyes and skin, nausea, vomiting**	*has_symptoms* (SIGNS/ SYMPTOMS)

Continuation of the table 4

4	Yellow fever is **caused by a flavivirus**, which is spread **by mosquitos** in Africa and South America, particularly in areas	caused_by/ transmitted_by (CAUSE/WAY OF TRANSMISSION)	
5	High fever returns and several body systems are affected, usually the **liver and the kidneys.**	affects (BODY PART)	
6	There's no cure for yellow fever, but the symptoms can be treated while your body fights off the infection.	treated_with (TREATMENT)	
7	**In this phase** people are likely to develop jaundice: yellowing of the skin and eyes, hence the name 'yellow fever'	has_phases (PROCESS)	
8	Yellow fever results in **death** for 20 to 50 percent of those who develop **severe disease.** Complications during the toxic phase of a yellow fever infection include **kidney and liver failure, jaundice, delirium, and coma.**	has_result (RESULT)	

Table 5

German concordances and conceptual relations for «Gelbfieber»

1	Gelbfieber ist eine schwere **Virusinfektion,** die durch eine Stechmückenart (**Aedes**) übertragen wird.	is_a (TYPE OF)	
2	**Hämorrhagisches Gelbfieber** führt zu Haut- und Organblutungen.	defined_as (DEFINITION)	
3	Ein schneller **Fieberanstieg** geht mit schweren Allgemeinerscheinungen einher (**Kopf-, Muskelschmerzen, Übelkeit**), häufig begleitet von **verlangsamtem Puls** und **Bindehautentzündung.**	has_symptoms (SIGNS/ SYMPTOMS)	
4	Gelbfieber ist eine schwere Virusinfektion, die durch eine **Stechmückenart** (Aedes) übertragen wird.	*caused_by/ transmitted_by* (CAUSE/WAY OF TRANSMISSION)	
5	Neben diesen schweren Verlaufsformen mit **Leberbeteiligung** (Gelbsuchtsymptome, daher der Name) kommt es auch zu leichten Erkrankungen, auch symptomfreie Verläufe sind möglich.	*affects* (BODY PART)	
6	Eine **symptomatische Behandlung** umfasst Maßnahmen zur Rehydratation und Gabe von Mitteln wie Paracetamol zur Schmerzlinderung.	*treated_with* (TREATMENT)	
7	**Phase I:** Ein schneller Fieberanstieg geht mit schweren Allgemeinerscheinungen einher (Kopf-, Muskelschmerzen, Übelkeit) (...).	*has_phases* (PROCESS)	
8	Die **Gesamtletalität** des Gelbfiebers beträgt zwischen 10 – 20%. Das Überstehen des Gelbfiebers führt zu einer **lebenslangen Immunität.**	*has_result* (RESULT)	

Table 6

Russian concordances and conceptual relations for «Желтая лихорадка»

1	Желтая лихорадка — острое **вирусное геморрагическое** заболевание, передаваемое инфицированными комарами.	*is_a* (TYPE OF)/ *defined_as* (DEFINITION)
2	Симптомы: **высокая температура, головная боль, желтуха, миалгия, тошнота, рвота и усталость.**	*has_symptoms* (SIGNS/ SYMPTOMS)
3	Жёлтая лихорадка (...) передается комаром Aedes aegypti от больного человека здоровому.	*caused_by/ transmitted_by* (CAUSE/WAY OF TRANSMISSION)
4	Характерен внешний вид больного: желтушное прокрашивание кожи вследствие **поражения печени** (отсюда название заболевания);	*affects* (BODY PART)
5	Предоставление хорошего **поддерживающего лечения** в больницах повышает показатели выживаемости. На данный момент антивирусных препаратов против желтой лихорадки не существует.	*treated_with* (TREATMENT)
6	Тем не менее у небольшой доли пациентов в течение 24 часов после исчезновения первых симптомов наступает вторая, более тяжелая **фаза заболевания.**	*has_phases* (PROCESS)
7	**Летальность** заболевания составляет от 5—10 % до 15—20 %, а во время эпидемических вспышек — до 50—60 %.	*has_result* (RESULT)

As can be deduced from the tables, the detection of conceptual relationships and the interlingual comparison of terms guarantees multilingual terminological equivalence and the efficiency of the translation.

In a future stage, a new round of terms in areas such as treatment will be extracted and studied following the premises explained here. Independently of their publication in the dedicated website, the results will be uploaded to the IATE database (Interactive Terminology for Europe; available at *http://iate.europa.eu*) as a collection to take advantage of the capabilities of this interinstitutional database.

5.   Conclusions

As we can see, human mind creativity is a powerful and vital tool for conceptualizing and better understanding the world. This is reflected particularly in specialized language, where the understanding and assimilation of underlying concepts require a higher cognitive effort. Due to this, in medical terminology we can see a significant presence of metaphors and different conceptual dimensions activated. Since human mind does not evoke an isolated concept but a whole network of related concepts, Frame-Based Terminology suggests using the cognitive approach in terminology

management. This suggestion for organizing specialized knowledge in the form of an event is useful for efficiently conveying a specialized domain.

Based on the initiative of the European Parliament and in this suggestion and with the goal of meeting the needs of MSF, a conceptual structure for the medical field was designed. Conceptual organization under the form of the Medical Event is the basis for efficiently and comprehensively depicting the knowledge about diseases. Determining the conceptual network underlying terms helps guarantee multilingual terminological equivalence and manage terms and terminological variants efficiently. This facilitates multilingual specialized communication for all user levels (experts/nonexperts). By improving doctor-patient communication, a large number of medical errors are avoided, the disease is detected and diagnosed earlier, and a better and quicker cure of the patient is guaranteed.

This approach and research in medical terminology is especially important in these delicate times of the pandemic we are experiencing. This fact requires greater collaboration between organizations, researchers, scientists, specialized translators and communication media to make possible interethnic relations and exchanges on the intercultural level. The accuracy and correctness of translation algorithms break down communication barriers and allow effective professional activity and cooperation between representatives of different nations to meet the challenges of new dangers for the humanity.

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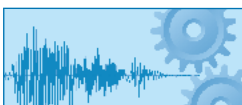
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