Achieving Sustainable Occupational Safety: Bridging Up Terminological Gaps

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Abstract. The article is devoted to the study of gaps in terminology in the language pair English-Russian thematically belonging to the sphere of occupational safety and health which derive from the differences in understanding the key concepts in two linguocultures. The authors believe that slow development of international cooperation in the sphere of occupational safety prevents the sustainable development of global economy as it hampers the exchange of experience and working out a common policy in dealing with occupational safety-related issues. On the material of thematic glossaries, standards of occupational safety and health in two languages the authors develop concept fields spotting terminological gaps and substantiating the causes of their existence, among which linguocultural factors are of primary importance. Further analysis aimed at the development of a bilingual occupational safety and health glossary will allow finding the most productive ways of interpreting the key terms in the languages under study, which will be beneficial both for the promotion of international cooperation in the sphere of occupational safety and health and sustainable development of global economy.

1 Introduction

Consumption culture and profit-focused economic development have led to unsustainable employment practices. As some scholars point out, social responsibility “has become crucial due to the need for governments and policy-makers to develop public infrastructures that are sustainable and offer additional social benefits” [1]. The sphere of occupational safety and health (OSH) is one of the most socially-significant areas and also an indispensable element of social policy of a modern state. It does not only relate to safeguarding the life of employees; in a wider context of economic development, OSH influences the production capacity and the general well-being of employees as well as the well-being of the whole society, thus meeting the requirements of United Nations Sustainable Development Goal 8 – promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all. It is also worth mentioning that OSH is related to other goals which are focused on promoting environmentally-friendly ways of living. As far as the environment is concerned, there is «the interconnection between occupational hygiene and health, which is based on three main pillars: economy, environment and society, just as...
sustainable development is based on three major topics: people, planet and profit. Thus there must be strong OHS policies that encompass sufficient environmental programs to ensure workers are safe and thus ensure sustainability [2].

According to Mark A. Friend and James P. Kohn, “occupational safety and health is concerned with minimizing loss by aiding in the preservation and protection of both human and other physical assets in the workplace” [3], and it addresses both moral and economic issues. OSH is a system of measures aimed at preserving life and health of employees while they carry out their professional activity, and includes legal, socio-economic, organizational-technical, sanitary-hygienic, medical-preventive, rehabilitation and other measures. Basic principles include the following [4]:
- Preserving life, health and earning capacity of employees;
- Social partnership of employers and employees;
- Guarantees of protecting the rights of employees for labour;
- Payment of compensations for hard work and work in hazardous and dangerous work conditions;
- Social and accident insurance of employees, insurance for occupational diseases;
- Medical, social and professional rehabilitation of employees.

Observing all the principles mentioned above may serve as the guarantee of providing OSH. Nevertheless, the system of OSH is not universal. Different countries follow their own guidelines and regulations, though it is advisable to take into consideration the recommendations outlined in the conventions of International Labour Organization (ILO) which include international standards specifying safety and hygiene of labour, and often underlie national OSH regulations.

2 Theoretical Background and Literature Review

As a research problem, OSH is studied within various theoretical domains of the humanitarian range of disciplines which include economics, social studies, safety studies, and is addressed from various points of view – as an issue of organizational capability [5], a problem of legislative and regulatory policy [6], gender and age-related issue [7], problems relating to certain professional areas or countries [8, 9], as a didactic issue [10]. Quite a big number of latest research works is devoted to OSH problems during the COVID-19 pandemic raising new issues for employers and employees as well as the society in general [11, 12].

In terms of sustainable development, some authors emphasize the significance of safe and healthy working environment for overall sustainability as it affects opportunities of economic and social development [13-16] (see Fig. 1, Fig. 2).

![Fig. 1. Correlation between Sustainability and OSH.](image-url)
As for linguistic studies, only a limited number of scholarly publications have been published relating to OSH, namely, its terminology system [16, 17], though some works are focused on the study of specific work-related terminology used by ILO in its conventions to denote the key concepts of this sphere, including international labour standards [19]. Nevertheless, the sphere of OSH lies beyond the scope of modern linguistics, which opens up a multitude of opportunities for research. This paper examines the correlation between Russian and English terms of OSH, on the one hand, from the point of view of the theory of lexical gaps related to professional terminological systems; on the other hand, it is focused on analyzing the correlation between the existence of terminological gaps in the languages under study and prospects of sustainable development at a global scale.

From linguistic perspective, lacuna (lexical gap, accidental gap, hole in the pattern) is the absence of correspondence in the language to a foreign language unit (it derives from Latin “lacuna” – a failure, and French “lacune” – emptiness, gap). Throughout the present research we choose to nominate this phenomenon as terminological gaps as they represent non-equivalent terminological units [20] which are inherent in any type of professional discourse.

Studies of semantic lexical gaps in business and legal discourse [21, 22] showed that they may be viewed as a way of transmitting national and cultural specifics of the language; they include a number of idioms, phraseological units, proverbs and sayings [23] Besides, they reflect differences in values between the two linguocultures [24].

The above analysis of the works convincingly proves that, despite the existence of a number of studies of the problem of lexical gaps within different types of discourse, including institutional discourse, the sphere of OSH has not been studied in this regard. Moreover, terminological gaps have not been viewed as a factor capable of promoting or hampering socio-economic development. We firmly believe that solving the problem of terminological gaps will significantly contribute to the development of universal terminology in the sphere of OSH, which will enhance international cooperation in this socially-important area contributing to sustainable development.

3 Methodology

3.1 Corpus

The research is conducted on the material of several foundational documents in the sphere of OSH – “Fundamental principles of occupational health and safety” published by International Labour Organization (ILO) an intergovernmental standard “System of standards of
occupational security. Terms and definitions. GOST 12.0.002.2014”, professional glossaries in the sphere of OSH in two languages – the glossary in Russian represents a collection of 101 terms defined by the Ministry of Labour of the Russian Federation (Mintrud) as the key OSH-related terms; the glossary developed by the ILO is a bigger compilation of terms in 5 languages – English, French, German, Spanish and Russian, though the research is based exclusively on the English-language terms which may serve as counterparts to the terms in Mintrud glossary.

3.2 Framework of Data Analysis

Multidisciplinary nature of the proposed research suggests employing a number of general scientific and specific linguistic methods, to include:
- analysis and synthesis;
- empirical research;
- contextual analysis, which contributes to the study of the functional specificity of words and their meanings, and also allows analyzing the dependence of the meaning of a word on a specific context;
- comparative analysis, which is designed to isolate units from the Russian language corpus that relate to non-equivalent vocabulary and compare them with the gaps in the English language in order to determine the most productive translation options;
- descriptive method consisting in the definition of special linguistic phenomena, which are subsequently described from the point of view of their structure and functioning;
- cognitive modeling method which results in the development of a bi-lingual model of OSH thesaurus based on concept fields of the key concepts of OSH in two languages;
- comparative-contrastive method which implies analyzing the differences between the perception of key OSH concepts in Russian and English.

We believe that the use of all of the above methods makes it possible to identify, analyze, compare and interpret the terminological gaps belonging to the sphere of OSH as well as highlight extra-linguistic causes of their existence.

It is our hypothesis that not all terms belonging to the sphere of OSH in Russian have counterparts in the English language due to the differences in cultural perception of major concepts and their verbal representation in English.

The analysis of the research material allowed developing a general model of a concept field of OSH typical of both languages (Fig. 3).

Fig. 3. Model of a concept field of OSH.

Based on this universal model, we have constructed extensive concept fields of OSH in two languages – Russian and English (Tab. 1; Tab.2 – the terms are placed in an alphabetical order) including up to 7 terms representing each concept. Concerning these fields, we find it
essential to point out that though the key concepts are the same, the concept fields in different languages include different terminological units, which, in our view, is dependent on cultural and social factors influencing the differences in the perception of certain concepts and the means of their representation.

Table 1. Concept field of OSH in Russian (the terms are translated from Russian into English using the Internet-based system of bilingual dictionaries Multitran. www.multiran.com).

<table>
<thead>
<tr>
<th>Life/health preservation</th>
<th>Working conditions</th>
<th>Insurance</th>
<th>Payments</th>
<th>Rehabilitation</th>
<th>Potential risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>collective protective equipment</td>
<td>heavy work</td>
<td>compulsory industrial-accident insurance</td>
<td>annual principal paid leave</td>
<td>-</td>
<td>harm (to humans)</td>
</tr>
<tr>
<td>harmful exposure</td>
<td>hot environment</td>
<td>employers' liability compulsory insurance</td>
<td>annual additional paid leave</td>
<td>-</td>
<td>line of fire</td>
</tr>
<tr>
<td>hygiene of labour</td>
<td>intensity of work</td>
<td>health and safety incident</td>
<td>base rate</td>
<td>-</td>
<td>maximum concentration</td>
</tr>
<tr>
<td>labour standards</td>
<td>overtime work</td>
<td>insurance rate</td>
<td>compensations</td>
<td>-</td>
<td>noise</td>
</tr>
<tr>
<td>national standards</td>
<td>permissive conditions (class 2)</td>
<td>insured employee</td>
<td>minimum wage</td>
<td>-</td>
<td>occupational accident</td>
</tr>
<tr>
<td>personal protective equipment</td>
<td>rotation-based work</td>
<td>insured/insurable event</td>
<td>position salary</td>
<td>-</td>
<td>occupational disease</td>
</tr>
<tr>
<td>professional standards</td>
<td>safe working conditions</td>
<td>risk assessment</td>
<td>rate tariff</td>
<td>-</td>
<td>occupational hazard (class 1-3)</td>
</tr>
</tbody>
</table>

Table 2. Concept field of OSH in English.

<table>
<thead>
<tr>
<th>Life/health preservation</th>
<th>Working conditions</th>
<th>Insurance</th>
<th>Payments</th>
<th>Rehabilitation</th>
<th>Potential risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>accident prevention</td>
<td>heavy work</td>
<td>accident analysis / investigation</td>
<td>death benefit</td>
<td>disability retirement</td>
<td>accident</td>
</tr>
<tr>
<td>acceptable daily intake</td>
<td>hot environment</td>
<td>accident insurance fund</td>
<td>disability benefit</td>
<td>first aid</td>
<td>accident black spot/hazard spot</td>
</tr>
<tr>
<td>acceptable levels of exposure</td>
<td>job analysis</td>
<td>accident cost accounting</td>
<td>disability pension</td>
<td>insurance medicine</td>
<td>carelessness</td>
</tr>
<tr>
<td>daily exposure time</td>
<td>maximum permissible noise/radiation level</td>
<td>degree of disability</td>
<td>lump sum benefit</td>
<td>mental / nervous fatigue</td>
<td>contaminant / pollutant</td>
</tr>
<tr>
<td>degree of noxiousness</td>
<td>monotonous work</td>
<td>disabling injury</td>
<td>safety bonus</td>
<td>occupational health service</td>
<td>danger zone</td>
</tr>
</tbody>
</table>
electrical safety  | sedentary work | disable insurance | sickness benefit | occupational psychology | hazardous condition |
---|---|---|---|---|---|
mental health  | shift work | occupational/ work accident / injury | - | overexertion / overstrain | impact noise |

The most visible difference between the linguistic representation of OSH in Russian and English consists in the choice of lexical means, which reflects extra-linguistic factors: Russian system of OSH is more focused on formal requirements both to occupational safety and working conditions while English system is more about prevention and post factum analysis of work-related incidents. Besides, for the concept of Payment it is also possible to mark the distinction between the two approaches: the approach reflected in the Russian language deals with obligatory payments, like regular salary according to rate tariffs, whereas the approach in the English language is targeted at additional payments like benefits and bonuses. A striking feature of the Russian glossary is that the concept of Rehabilitation is not verbalized at all while the English glossary contains a number of terms relating to mental / psychological health which is extremely important not only for the prevention of occupational incidents but is crucial in dealing with professional burnout.

Cultural and socio-economic factors are also connected with the linguistic problem of terminological gaps – there are a lot of terms in the Russian glossary which do not have equivalents in the glossary in English, for example, state sanitary rules and regulations or technical standards of care, which also relates to observing formal standards rather than offering relief to those who suffered from hard working conditions or an occupational incident.

On the other hand, there are quite a lot of terms which correspond with their counterparts in English, for example, hot environment, shift work / labour, which opens up the prospects for drawing together the two approaches and developing a common strategy to promote international cooperation which will surely contribute to sustainable development at a global scale.

### 4 Conclusion

The study has examined terminological units of OSH in Russian and English, which led the authors to the conclusion that many Russian terms do not have corresponding terms in the English language, which, in the opinion of the authors, can be explained by extra-linguistic factors. Besides, a number of terms are differently understood in Russian and English linguocultures. Despite the tendency of harmonization of key spheres of socio-economic activity due to global integration processes, as well as internationally adopted labour standards developed by the ILO, the sphere of OSH still remains isolated within national systems and limited by national standards. Developing a common strategy will have beneficial effect on strengthening international cooperation in the sphere of occupational safety and health thus promoting sustainable development in Russia and countries of English-speaking world.

### References


4. B. Alli, Fundamental principles of occupational health and safety (International Labour Office, Geneva, 2001)


