

## WATER TERMINOLOGY IN ENGLISH AND ROMANIAN

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**Abstract:** The main topic touched upon is the structural and semantic peculiarities of water terminology in English and Romanian. We elaborate a theoretical and practical support of structural and semantic peculiarities of water terminology in English and Romanian based on wusteriene and neowusteriene terminology theories. Origins of semasiology and onomasiology are traced and current research areas, principles and techniques are discussed. We take as a standard the European Water Directive terminology, and try to raise the quality of Moldavian water terminology by analyzing the semantic and structural peculiarities of both.

**Key words:** term, concept, definition, taxonomy, term card.

### 1. Introduction

There exist a lot of controversies about terminology as a separate discipline. The existence of three schools of terminology the Vienna, the Prague, and the Soviet schools, is one of the reasons of appearance of so many debatable issues in this field of linguistics. The starting point of these controversies is the fact that terminological work can be both attributed to the sphere of competence of linguistics as well as to the domain of individual subject areas. As a result it became more and more apparent that terminology was in need for an independent discipline – a terminology science. Wüster's last work *Einführung in die Allgemeine Terminologielehre und Terminologische Lexikographie* (1979) became the most comprehensive account of the terminology theory. It was an attempt to explain

terminology both with respect to its theory and method.

The relevance of this research consists in providing a wider perspective on the terminological study of water terminology in Romanian, and bringing it closer to European water terminology standards. We can affirm that in order to join the European Union our country needs to adopt all those European norms so that it could face all the European demands. Terminology standardization is one of those norms that have a vivid sociolinguistic aspect.

The topic presented is of great interest especially for, translators and interpreters, who are mostly the first who feel the lack of terminologies when they have to reformulate the information in another language. Terms are needed when the information is formulated and when it is condensed or retrieved. The need of terminology is explained also by the fact

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that scientific knowledge and technological skills are scattered on different places of the world. The transfer of knowledge and skills is only possible if the terminologies in the respective languages are developed.

Our study deals with terminology standardization and as a result our purpose is to depict the linguistic problems connected to structural and semantic aspects of water terminology from Moldavian Water Legislation and to find out solutions, by comparing it with European Water Legislation terminology.

The focal topic of the present paper is the study of the current use of water terminology in Moldovan Legislation. We suppose that water terminology from the Moldovan Legislation is misused in some instances, at the level of concept, term and definition because it presents a mixture of terms that are translated unprofessionally from Russian and English water terminology.

## **2. Structural and Semantic Peculiarities of Water Terminology in English and Romanian**

One challenge we face is the analysis of the semantic and structural peculiarities of terms. One of our basic tasks is to choose a specific field of terminology. We decide to choose the field of water terminology. We choose to work with water terminology in two languages English and Romanian. The classification we make in the second chapter of our Master Degree Paper is based on the model of WordNet. WordNet is a large lexical database of English. Nouns, verbs, adjectives and adverbs are grouped into sets of cognitive synonyms (synsets), each expressing a distinct concept. Synsets are interlinked by means of conceptual-semantic and lexical relations. WordNet resembles a thesaurus. It groups words together based on their meanings. The specific thing about

WordNet is the fact that it interlinks not just word forms but specific senses of words as well. As a result, words that are found in close proximity to one another in the network are semantically disambiguated. It also labels the semantic relations among words. WordNet is a good example of operating with words but in our case we apply it in operating with terms. The main relation among words in WordNet is synonymy. Synonyms are grouped into sets (synsets). Usually a synset contains a brief definition and one or more short sentences to illustrate the use of the synset member. We illustrate three types of semantic relations between water terms: synonymy, hyponymy, and meronymy.

We have examined 22 head water terms, and 71 definitions. We get from each definition other terms that can be in relation of subordination or coordination with the head term. Overall they are 53 water terms. For each term we provide definitions from different sources. We use both online and written glossaries. Our basic sources of definitions and terms are the *European Water Directive* glossary in English and Romanian, *Legea Apelor* glossary, and *Codul apei* glossary. The criteria for selecting examples are: 1. Terms should be used in legislative documents; 2. Terms should belong to River Basin Management topic. We analyze the semantic and structural peculiarities of each term using several instruments: Mantzari's methods of term formation [2], T.Ch.Gillreath's seventeen term evaluating criteria, J.C. Sager's classification of definitions [3], M.T. Cabre's rules of definition writing [1]. All examples belong to a certain group of water terms. There we present four classifications: 1.) Classification of water terminology according to water area measurement; 2.) Classification of water terminology according to area of land;

3.) Classification of water terminology according to ecological issues; 4.) Classification of natural phenomena terminology connected to water. It is worth to mention that we analyzed the terms out of context.

In this research we present a bilingual work with water terms. We present for each English water term its correspondent water term in Romanian. The same thing we do with the definitions. Applying the methods of comparison, contrast, analysis, synthesis, we try to ameliorate the quality of the definitions written in Romanian in those cases where it is necessary.

#### **Classification of water terminology according to water area measurement**

- **Surface water/Ape de suprafață**
- **Body of surface water/Corp de apă de suprafață**
- **Lake/Lac**
- **River/Râu**
- **Ocean/Ocean**
- **Pond/Iaz**

- **Floodwater/Ape ce provin din inundații**
- **Artificial water body/Corp de apă artificial**
- **Reservoir/Lac de acumulare**
- **Canal/Canal**
- **Dock/Doc**
- **Heavily modified water body**
- **Groundwater/Ape subterane**
- **Aquifer/Acvifer**
- **Inland water/Ape interioare**
- **Standing water/Ape stătătoare**
- **Flowing water/Ape curgătoare**
- **Lake/Lac**
- **Bay/Golf**
- **River/Râu**
- **Water course/Curs de apă**
- **Inlet/Golfuleț**
- **Transitional water/Ape de tranziție**
- **Estuary/Estuar**
- **Lagoon/Lagună**

#### **E.g. 1) Surface water/Ape de suprafață**

T1.	T2.	T3.	T4.	T5.
<p><i>Surface water – D1.</i> means inland waters, except groundwater; transitional waters and coastal waters, except in respect of chemical status for which it shall also include territorial waters [7, p. 8].</p>	<p><i>Ape de suprafață – D2.</i> înseamnă apele interioare, cu excepția apelor subterane; și apele de tranziție și apele de coastă și, în ceea ce privește starea chimică, apele teritoriale [6, p.198].</p>	<p><i>Ape de suprafață – D3.</i> ape stătătoare și ape curgătoare de la suprafață solului [4, p. 12].</p>	<p><i>Ape de suprafață – D4.</i> toate apele care se scurg sau stagnează pe suprafață terestră [9].</p>	<p><i>Surface water – D5.</i> water on the surface of the ground (lakes, rivers, ponds, floodwater, oceans, etc.); precipitation which does not soak into the ground or return to the atmosphere by evaporation or transpiration [10].</p>

The two terms presented in this block are complex compound terms. They are formed from combining existing words. In English T1 and T5 are composed of two nouns *surface* and *water*. In Romanian T2, T3, T4 are composed of two nouns *ape* – plural from *apa*, *suprafață*, and the preposition *de*. The terms are both accurate and highly precise. Both terms *surface water* and *ape de suprafață* don't have misleading or incorrect elements, and they clearly delineate the concept of surface water. They are equally descriptive by indicating the name of a specific type of water and giving its specific feature *surface* and *suprafață*. From the point of view of the criterion of *appropriate simplicity* the English term *surface water* is a binomial, while the Romanian *ape de suprafață* is a trinomial.

While analysing the definitions of these two terms we made the following observations. Both definitions of T1 and T2 have the initial descriptors of the same grammatical category as the head term “surface water - means inland waters...” and “ape de suprafață – înseamnă apele interioare...”. In both cases the initial descriptors have the plural form. D1 and D2 firstly give a synonym of the concept of *surface water* without giving any specifications, secondly gives names of water that do not belong to the group of *surface water*: ...*except groundwater*; and names of water that belong to this group *transitional waters and coastal waters*, *except in respect of chemical status for which it shall also include territorial waters*, cu excepția apelor subterane; ...*și apele de tranziție și apele de coastă și, în ceea ce privește starea chimică, apele teritoriale*. D3 gives a lexical taxonomy of *ape de suprafață* : *ape stătătoare și ape curgătoare*, and includes the paraphrasis

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*de la suprafață solului*, which is a strong point of the definiton. D4 generalizes the concept of *surface water*, and in comparison with D2 doesn't make any specifications. The use of the word combination *toate apele* sounds too extreme. The weak points of D5 is the fact that it is circular: *water on the surface of the ground*, and the information from the second part of the definition *precipitation which does not soak into the ground or return to the atmosphere by evaporation or transpiration* is highly debatable. The strong point of D5 is the fact that it gives a partial taxonomy of *surface water*: **Ape de suprafață** - înseamnă apele interioare, stătătoare și curgătoare, cu excepția apelor subterane; și apele de tranziție și apele de coastă și, în ceea ce privește starea chimică, apele teritoriale.

#### Classification of water according to area of land

- **River basin/Bazin hidrografic**
- **Stream/Fluviu**
- **River/ Râu**
- **Lake/Lac**
- **Drainage divide/Cumpăna apelor**
- **Catchment/Bazin de captare a apelor**
- **Sub-basin/Sub-bazin**
- **Stream/Fluviu**
- **River/ Râu**
- **Lake/Lac**
- **River basin district/District hidrografic**
- **Area of land/Zonă terestră**
- **Area of sea/Zonă marină**
- **Groundwater/Ape subterane**
- **Coastal water/Ape de coastă**

### E.g. 2) River basin / Bazin hidrografic

T1.	T2.	T3.	T4.
<i>River basin</i> – D1.  means area of land from which all surface run-off flows through a sequence of streams, rivers and possibly, lakes into the sea at a single river mouth, estuary or delta [7, p.9].	<i>Bazin hidrografic</i> – D2.  înseamnă orice zonă în care toate scurgerile de apă converg, printr-o rețea de râuri, fluviu și, eventual, lacuri, către mare, în care se varsă printr-o singură gură de vărsare, un singur estuar sau o singură deltă [6, p.198].	<i>Bazin hidrografic</i> – D3.  porțiune de teren de pe care toate scurgerile de suprafață curg printr-o succesiune de râuri, fluviu și lacuri spre mare într-o singură gură de vărsare, estuar sau deltă, delimitată prin <u>cumpăna apelor</u> [4, p.12].	<i>River basin</i> – D4.  means area of land from which all surface run-off flows through a sequence of streams, rivers and possibly, lakes into the sea at a single river mouth, estuary or delta. It comprises one or more individual catchments [8, p.12].

The terms presented in this block are complex compound terms. They are formed from combining existing words. In English T1 and T4 are composed of two nouns *river* and *basin*. In Romanian T2 and T3 are composed of one noun *bazin* and an adjective *hidrografic*. The terms are equally descriptive by indicating the name of a specific type of *basin* and giving its specific feature. Both terms are highly descriptive. The terms are both accurate and highly precise. Both terms *river basin* and *bazin hidrografic* don't have misleading or incorrect elements, and they clearly delineate the concept of *river basin*. From the point of view of the criterion of *appropriate simplicity* the English term *river basin* is a binomial, and the Romanian *bazin hidrografic* is also a binomial. All four definitions mention the subordinate terms of the concept *river basin*. Due to this fact all four definitions are synthetic, because they identify the place of the concept in a system and mention the subordinate terms.

As a rule the definitions should be about the concept not the word. So all four definitions are about the concept of *river*

*basin* and all four give synonymous paraphrases of the term. The terminologist doesn't limit the definitions to a simple description, but it establishes a system of elements that are characteristic to this concept and the relations between them. D3 specifies an important fact about the concept of *river basin* - *o singură gură de vărsare, estuar sau deltă, delimitată prin cumpăna apelor*. *Cumpăna apelor* means the line which separates two river basins. In English it is called *drainage divide*. D4 also makes a specification: *It comprises one or more individual catchments*. Catchment is the area from which precipitation contributes to the flow from a borehole spring, river or lake. For rivers and lakes this includes tributaries and the areas they drain.(river basin management).

There is also a difference between *bazin hidrologic* and *bazin hidrografic*. The first one refers only to surface water, while the second one refers to groundwater. We can make another distinction:

**Bazin hidrografic** – porțiune de teren de pe care toate scurgerile de suprafață curg printr-o succesiune de râuri, fluviu și lacuri

spre mare într-o singură gură de vărsare, estuar sau deltă, delimitată prin cumpăna apelor. (*legea apelor*).

**Cumpăna apelor**- linia de separație dintre două bazin hidrografice.

Definitions must be written so that the initial descriptors are of the same grammatical category as the head term, e.g. “Ape interioare – înseamnă toate apele stătătoare sau curgătoare de pe suprafața solului și toate apele subterane situate în amonte față de linia de bază care servește la măsurarea întinderii apelor teritoriale.” All definitions that were analysed respect this rule. Definitions must use known words; if more specific words are used, they must be terms defined in the same glossary or dictionary. In *European Water Directive* this rule is taken into consideration and respected, e.g. Surface water –means inland waters, except groundwater; transitional waters and coastal waters, except in respect of chemical status for which it shall also include territorial waters. This definition explains the concept of *surface water* with the help of four terms which are related to this concept, and according to the second rule of writing a definition listed by M.T. Cabre, three of these term are explained in the same glossary except *territorial waters*. Adding the definition for this term will be a plus for the glossary. In the glossary of *Legea Apelor* this rule is not respected at a high level. For instance, the following definition „Bazin hidrografic – porțiune de teren de pe care toate surgerile de suprafață curg într-o succesiune de râuri, fluvii și lacuri spre mare într-o singură gură de vărsare, estuar sau deltă, delimitată prin cumpăna apelor.” comprises five terms *râu*, *fluviu*, *lac*, *estuar*, *deltă*, *cumpăna apelor*. The glossary of *Legea Apelor* gives an explanation only to one of

these terms – *lac*. The other four terms can be met in the text of the *Legea Apelor* but they are not explained previously and this makes the understanding of the text more difficult. Another weak point of the glossary of *Legea Apelor* is the fact that it avoids explaining such terms that are met in the text as: acvacultură, efluent, apă de drenaj, albie, etc. Definitions should not be circular. This rule was not respected in all definitions that we analyzed, e.g. “*Pollutant – means any substance liable to cause pollution.*”, “*Poluant - înseamnă orice substanță care ar putea constitui factor de poluare.*”, “*Poluant – orice substanță care ar putea constitui un factor de poluare.*”. In cases when this rule is not respected one of the ways to ameliorate the quality of the definition is to use periphrasis. In this case the term *pollution* can be replaced by the term *contamination*.

Definitions written in English use as an introductory element of the definition the word *means*, e.g. *Groundwater – means all water which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil*. All definitions that were translated into Romanian from the European Water Directive have this word as introductory element of the definition as well, e.g. *Ape subterane – înseamnă toate apele care se găsesc sub suprafața solului în zona de saturatie și în contact direct cu solul sau cu subsolul*. None of the definitions from the *Legea Apelor* contain this element. We consider that it is better to use this element because it makes the definition more explicit and it creates a structure /x = means/înseamnă +z+y.../.

While doing our analysis we came across examples of terms that can cause confusion due to their form and meaning. For instance the term *wastewater* can be written both as *wastewater* and *waste*

water. The glossary of *European Water Directive* gives the form of *wastewater*, while many of the online glossaries give the form *waste water*. We decided to use the form *wastewater*. Another confusion was caused by the two terms *bazin hidrologic* and *bazin hidrografic*. They can be easily confused. In order to eliminate the confusion we looked out for definitions for both terms, and we found out that *bazin hidrologic* refers only to surface water, while *bazin hidrografic* refers only to groundwater. For our analysis we used both written and online glossaries. We observed that there are qualitative differences of the definitions written in both type of dictionaries. For example: “*Groundwater – means all water which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.*”, “*Groundwater – water that can be found in the saturated zone of the soil, a zone that consists merely of water. It slowly moves from places with high elevation and pressure to places with low elevation and pressure, such as rivers and lakes.*”, we can easily observe that the online definition consists of two sentences which is not appropriate for a definition. All definitions that were taken from the written glossaries were composed of one simple, compound or complex sentence.

## 2. Conclusion

Terminological work starts with the concept, which is a mental category, and ends with designation, which takes the form of a term. Thus, we conclude that the concept is superior to the term. The definition is only a part of the semantic specification of a term which can itself be complemented by morphological, syntactic and at times pragmatic information. Thus,

the definition appears to be the most ambiguous notion in the trichotomy concept-term-definition.

Due to the intention of the Republic of Moldova to join the European Union, the responsibility of the Republic of Moldova to correspond to the European norms of terminology is inevitable.

The subject of this research can be continued. Our intention is to create a database of water terminology both in English and Romanian taking as a example the database WordNet in its complete form; enlarging the list of topics connected to water (e.g. *Water Pollution*, *Water Conservation*); enlarging the type of texts to be studied (e.g. water articles, publications, magazines).

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