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MULTI-CULTURAL PROBLEMS IN KNOWLEDGE ORGANIZATION AND DISSEMINATION FOR INFORMATION INDEXING AND RETRIEVAL

Wiesław BABIK

Jagiellonian University in Cracow, POLAND Institute of Library and Information Science,
w.babik@uj.edu.pl

ABSTRACT

The paper refers to selected multicultural problems in knowledge organization for an information system. Problems will be presented on the example of ethnology and culture anthropology, in the part concerning the folk culture of the Polish Carpathian Mountains Region. It is a specific area of research primarily due to non-coherence and syncretism of the object of its studies. Folk traditions are syncretic with respect to both genetic-historical and structural-functional aspects.

It is assumed that the indispensable element of the system under construction should be a carefully prepared organizational diagram of non-linguistic knowledge (field knowledge), expressed in the form of a nest arrangement of terms to constitute adequate materials, for the generation of the required indexing and retrieval language. The diagram was called the Term Nest System. Its structure reflects the structure of the respective field knowledge, and it is expressed by a proper terminological system.

The lexical material turned out to be exceptionally difficult for the purpose of creation of terminological nests, resulting e.g. in a large diversity of such nests. The nests do not create ordinary nest systems but rather represent term clusters which originate either from one type of relationships occurring between the terms (e.g. thematic relationships, generic relationship) or constituting a specific situation record (a scenario), or being simple enumerations of terms belonging to a nest. The nests are a type of association fields connecting basic terms, naming main objects of research, with the associated expressions in accordance with the undetermined strictly and unspecified association relationships in the vocabulary or the relationships which are not hierarchic in nature. As a result, a specific knowledge map was developed.

The research allowed to propose a new procedure for building the indexing and retrieval language that would be quite different from the one applied before and based on previous creation of knowledge organization structures in the given field, and only later followed by generation of a proper information and retrieval language based on such a structure. It seems to me that our new procedure can be used in those fields

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where the object of research is very incoherent, and, at the same time, where coexist various and equal scientific theories using the same terminology.

KEYWORDS:

Knowledge Organization. Information Indexing and Retrieval. Ethnology and Culture Anthropology.Term Nest System. Key-word Language

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INTRODUCTION

The paper refers to selected multicultural problems in knowledge organization for an information system. Problems will be presented on the example of ethnology and culture anthropology, in the part concerning the folk culture of the Polish Carpathian Mountains Region. Ethnology is the area involved in the theoretical and comparative studies of various cultures. It is a specific area of research primarily due to non-coherence and syncretism of the object of its studies.

Research and project works are conducted by a mixed team composed of ethnologists and scientific information specialists involved in indexing and retrieval languages, including knowledge organization. One of the elements of such projects became the indexing and retrieval language for the system.

It is assumed that the indispensable element of the system under construction should be a carefully prepared organizational diagram of non-linguistic knowledge (field knowledge), expressed in the form of a nest arrangement of terms to constitute adequate materials, for the generation of the required indexing and retrieval language. The diagram was called the Term Nest System. Its structure reflects the structure of the respective field knowledge, and it is expressed by a proper terminological system.

The purpose of my paper is to present the results of our research and project works conducted by our team, e.g. in the form of completed term nest systems and key-word vocabularies generated from them, within selected culture categories. Further works will provide new culture categories. My paper is also intended to demonstrate a catalogue of problems that the authors of diagrams and languages were faced with, based on the material collected from many local traditions constituting the folk culture of the Polish Carpathian Mountains Region in total. The characteristics of such problems results primarily from the multi-cultural and heteronomic cultural aspects reflected in the system and language built for the system.

1. THE PROBLEM OF "MULTI-CULTURALITY" OF FOLK ART

Ethnology does not actually deal with "folk culture" in general, but rather with many local traditions-cultures. When building the description language/meta-language, we need to remember that the "intra-cultural translation is never complete or adequate, since it is always connected with information loss, or meaning modification" (Robotycki, Babik 2002, p. 7). For that reason, when building a terminology system and a key word vocabulary in that field, we are in fact condemned to a certain simplified and directed image of folk culture or folk cultures in fact.

Folk traditions are syncretic in the genetic-historic and structural-functional senses. Consequently, ethnology deals with the indefinite and with the ambiguity of

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linguistic and cultural signs. That is confirmed by regular ethnographic or folklore research, as well as the contents of particular folk genres.

In folk traditions and in culture in general, the relationships between the plane of content and the plane of expression are more complex than in a natural language. We can distinguish a specific number of levels in the plane of content, and various formal properties in the plane of expression. The terms of folk traditions referring to beliefs or rituals are integral parts of the cultures' planes of expression, directly related to the cultures' contents. That is a two-way relationship. Hence, repeatability and significance in various cultural contexts are the decisive criteria for the inclusion of terms and key words in a vocabulary.

Folk medicine may be an example of the multi-culturality problem generator in folk culture. We quote below Z. Libera's considerations of the matter (Libera 2005). Folk medicine associates the "nature" of particular diseases with the sick person's age and gender, or the "nature" (determined by common and mythological sense) of the child and adult man or woman, which determine the acceptance of particular treatment means and methods. Folk medicine assumed disease symptoms as the basis of diagnosis, and the task of the therapy was rather to fight the symptoms. To give some examples, in a folk classification of diseases, "febra" (fever), also called e.g. "zimnica" (cold), included a number of various ailments, because what was considered in diagnosing were characteristic symptoms: "dreszcze" (shiver), "rzęsienie" (trembling) and "zimno" (cold), and that is why fever was identified in the context of spells, erysipelas, rheumatism, stomach pains, convulsions, dentition etc. "Kolka" (colic) is the name of a separate disease often associated with pneumonia and pleuritis; such diseases were diagnosed as "colic" and sometimes as "gorączka" (high temperature); when "kłucie w boku " (side stinging) was insignificant, the dominating symptom was "high temperature". All ailments originating mainly from cold, demonstrated by high temperature, colic, chest pain, were called "high temperature" or "colic", depending on the dominating symptoms. High temperature, colic and "schnięcie" (wizening) or leaning in particular, as well as hard breathing and dry cough, were characteristic symptoms of tuberculosis. The reason was that the main symptom of the disease was supposed to be the patient's "withering" or "drying up", and in this case like in many others, the sickness name originates from that process in many languages. In fact, "suchoty" (drying up) was not only tuberculosis, as generally identified by doctors and ethnologists, but generally a lung disease and many other diseases, especially chronic ones (e.g. stomach diseases, thus "suchoty żołądkowe" (stomach drying up), observed when the patient lost appetite, became weak or skinny. Then, when the patient lost appetite, without colic and fever, or felt them only slightly, but suffered difficulty in breathing, the disease was treated as "choroby dychawiczne" (asthma or, descriptively, a "breathing disease"), or "shortness of breath". The symptom called like that referred to ailments of particular body parts, e.g. "colic" referred to "liveliness of spleen" or that of liver or stomach, or otherwise to pneumonia and pleuritis, even including some heart ailments. Based on the same principle, that is problem location, the nature of some of

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the symptoms, "breathing diseases", upper respiratory tract diseases, with neck or throat ailments, e.g. flue, angina, scarlet fever, chincough, even regular cough, could be called "ból gardła" (throat pain). The latter was also included in even more general "ból głowy" (headache) which referred to a regular headache, migraine, dizziness, ear and neck ailments or mental diseases. According to folk beliefs, a specific disease could change its location in the patient's body. Consequently, each ailment could have a different course of development, with slightly infrastructure completely different symptoms. For that reason, folk medicine refers e.g. to light, blunt, pungent, pinching, biting, dull, or penetrating pain of head or stomach, dry or wet plica or cough, chronic, acute, "running", "severe" "drying up" etc. The "nature" of diseases was shaped by aetiology to which considerable attention was paid. Variations of one disease were identified on the basis of aetiology (sometimes the reasons of a disease constitute the proper name of the disease, e.g. spells), being different in the nature of ailments, depending on the failure time, place, events, perpetrators etc. Some of the treatment means and methods were directed to the removal of the reasons of the disease, while others to fighting the pain symptoms, or the means were selected based on the patient's age and gender.

We tried to refer to such and other considerations of "folk medicine," (Libera 1995) concerning ethos, customs, magic and demonology when developing the *System…* and the *Vocabulary…*, that is the studies which should be as close as possible to the ethnographic specifics. Folk classifications, terms from the colloquial languages of the social and cultural communities that are called "local communities" or "folk traditions" in ethnography became the foundations of the *System…* and the *Vocabulary…*.

2. THE CONTEXT OF THIS PROBLEM IN AN INFORMATION RETRIEVAL SYSTEM

The languages of many fields, and primarily that of humanities, does not often have well-defined terminologies, which affects the clarity of the message. A particular case is presented by the language of the broadly understood culture science. Synonymy and ambiguity of terminology used there has its source in the presence of dialectal terms in that terminology, with the designates found in the objects of material culture associated with the given region, as well as the customs, activities and the objects thereof of ritual nature that are parts of the customs of the given community. Terminology becomes a source of the key words that allow for the reproduction of the document contents for the needs of information and retrieval systems. Consequently, the terminological vocabulary of such fields as ethnography and ethnology may not be only a regular list of terms, but it also has to contain a systematic part placing the terms in the proper field that determines the terms' meanings and use. The list of the key words used for document reproduction and retrieval is a derivative of a term nesting system, reduced by explicit indication of term interrelationships. Understanding of this special

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situation of the culture science terminology constituted the foundation of building an integrated vocabulary, presenting both terminological system of that field and lexical system of the key-word language, in the form of a key-word vocabulary. Our intention is that the key words should be correlated with the contents existing in the given field's knowledge structure, or the knowledge presented fragmentarily in the documents that present the heritage of the field.

In the archives of particular institutions, we can find the materials which can be described by specification of the following properties:

- Field interviews are the records of people's statements or personal descriptions representing various levels of generality, conducted in accordance with specific questionnaires prepared in accordance with unknown assumptions.
- Descriptions of cultural phenomena drafted in various ways, without applying a uniform language. In such texts, we can find various description conventions, from scientific to spontaneous, originating from the 19th century, as well as quite recent ones which fulfil the field research requirements.
- In one text (inventory unit), we can find both description and commentary.
- The materials contain various types of extracts from sources and documents.
- Ethnographic records also contain folk texts, records of opinions stated by informants, their convictions, stories and memories through which we can gain knowledge of the culture in actual operation.
- The archives also contain the collections of sketches, drawings and photographs (Robotycki 2001).

Such diverse material constituted the source of terms and key words discussed in this paper.

The terminology of particular culture categories is not uniformly expanded. That results primarily from the present degree of the popularity of research on particular culture categories. The vocabulary in its present form has a facet structure. It includes five groups of lexical groups concerning ethos, rituals, magic, demonology and folk medicine. The terminology contained there creates an open collection, i.e. we assume the possibility of its supplementing with other key words. The vocabulary will be accompanied by a corresponding indexing instruction, containing the rules of vocabulary use to be prepared after the PROKES database indexers and co-authors have learned of the proposed vocabulary.

3. A NEST-STRUCTURE VOCABULARY AS A SOLUTION OF THE PROBLEM OF EXPRESSING MULTI-CULTURALITY IN THE KEY-WORD LANGUAGE

The lexical system of the language under discussion is presented by the terminology and key words of the culture categories mentioned above. By assumption, the system will have a double nature: fulfilling the conditions of theoretical knowledge expressed in the terminological system and the conditions of practical use (key word

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vocabularies). Therefore, the lexical contents of the vocabularies, depending on the system, will reproduce either the semantic field of the selected part of ethnology [Nest System of Terms] or the semantic field of the description language of the particular publication [Key Word Vocabulary].

Terminology is presented in a nest system which allows us to locate particular terms in a proper field that determines the terms' meaning and use. Since the collected material turned out to be exceptionally difficult for the creation of terminological nests, we created a large number of diverse nests rather. The nests do not create regular nest systems, but rather constitute various types of the term clusters (facet types) developed either on the basis of one type of the relationship occurring between the terms (e.g. thematic or generic relationship), or constituting a certain type of the situation record (scenario), or being a simple enumeration of the terms that created a given nest etc. The nests are in fact types of association fields that connect the basic ethnology terms which name the main objects of research, with the expressions which are associated with the fields on the principle of association relationships that are not determined strictly or have not been specified in the vocabulary, thus, they are the relationships which are not hierarchic. Hence, the system is a combined one, as a result of its operating possibilities as part of the information and retrieval system.

The proper key word lists used for the reproduction of contents and document retrieval are the derivatives of the description system applied in the ethnographic description. The nest term system and the key-word vocabulary are in fact two different lexical collections, although they are coherent. There are certain similarities and essential differences between the terms and the key words as the elementary lexical units. The key-word vocabulary is e.g. missing the explicit indications of key-word relationships. Such an integrated vocabulary, presenting the ethnography and ethnology terminology and key words system, was developed for the following reasons:

- Firstly, owing to such a lexical organization, the key-word vocabulary user may learn the term context. The term system constitutes a specific reproduction of the culture system which shows the principles of subordination and mutual relationships between particular cultural phenomena.
- Secondly, there are essential material relationships between the distinguished category groups. They create mutual contexts for each other. They include various possible description approaches, based on various theoretical visions of the essence of culture. Hence, the postulate of the multitude of languages required for the description of culture has been fulfilled.
- Thirdly, the system shows the diversity of the positions represented by the authors of particular parts of the vocabulary in respect of the cultural phenomenon systematization.
- Fourthly, the nest system demonstrates how heterogeneous is the terminology of the field in question. We can find here the terms originating directly from the folk level but operating on the descriptive meta-level and the categories belonging only to the latter level. So, when establishing the terms' scopes, it is not enough to use a

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traditional ethnographic terminology, but it is indispensable to take into account various dialectal variations as well.

Therefore, the key-word vocabularies constitute only one of the two elements of the key-word language for ethnology. They will be used as the tools for coordinate indexing in the information system being constructed for archival sources regarding the Polish Carpathian Mountains folk culture, which are collected in the Institute of Ethnology and Cultural Anthropology of the Jagiellonian University in Kraków, and may be treated as controlled key-word lists.

The induction and deduction method was applied in the development of the lexical collection of the Vocabulary. The method consists in excerpting lexical items from the texts and documents, which are representative for the current literature of the field, observing the *literary warrant* principles and their documentary descriptions, followed by supplementing the lexical collection with the terms originating from a newly developed key-word system and other lexicographic sources. The method assures the current status of the vocabulary and reflecting of the whole thematic scope of the vocabulary, which are the grounds of vocabulary completeness.

We decided to apply a new method of key-word language presentation for the needs of the system under construction. The method contains more information on the semantic structure of the language than the classical ethnology key-word language. The new language was established and has still been developed since 1993 as part of the works on the ordering of terminology in the respective field supervised by Prof. Czesław Robotycki. Since it was recognized that terminology not only makes it easier to gain knowledge, but it is also a source of key words which allow to reproduce the contents of ethnographic documents and sources for the specific needs of the information and retrieval systems, it was decided to integrate those works with the works on the vocabulary or rather key-word vocabularies for particular culture categories.

The system vocabulary is composed of two elements: term nest system constituting a culture science term list, in the form of a systematic listing of the terms locating them in the respective fields, determining the terms' meaning and use, and the key-word list (called the key-word vocabulary) applied for document reproduction and retrieval. The integration of both elements was dictated by a special situation of the field's terminology.

The key-word lists are accompanied by the term listings in a nest system. The lists explicitly demonstrate the semantic categorization of the lexical units, as well as certain elements of the language's paradigmatic structure. The lists are in fact certain association fields or nests that connect the basic terms of ethnology, naming the main objects of research, with the expressions associated with them on the basis of paradigmatic relationships which are not strictly determined or specified in the

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vocabulary. Such systems are still very useful for the user. Such systems are supplemented by the facets in the forms of the lists of festivals, saints and churches (denominations) and healing herbs. However, the language presented in that way is not a classical key-word language whose characteristic feature is, by assumption, a flat lexical structure, while its paradigm resides implicitly in the language user's competence in the area of the respective natural language. That fact certainly affects the indexation process. The language paradigm which is not demonstrated explicitly may not be used in the retrieval process, thus, it is not possibly to apply automatic paradigmatic retrieval in such languages.

The language presented here is an example of a double presentation of the key-word language lexical system. We will illustrate this idea with a fragment of the key-word vocabulary for the selected culture categories relating to one of the oral cavity diseases, commonly called "toothache" (Robotycki, Babik 2005).
[…]
. *CHOROBY JAMY USTNEJ*
. . **BÓL ZĘBÓW**
 . . . *ETIOLOGIA*
. . . . CIĄŻA
. . . . JEDZENIE CUKIERKÓW
. . . . NADMIERNY WYSIŁEK
. . . . ROBAKI
. . . . ZŁAMANIE ZAKAZU
[…]
. . . *LEKI I SPOSOBY LECZENIA*
. . . . DOTYKANIE
. . . . . KOŚĆ Z CMENTARZA
. . . . . PALEC TRUPA
. . . . . RĘKA TRUPA
. . . . . ZĄB ZMARŁEGO
. . . . JEDZENIE
. . . . . CHLEB NADGRYZIONY PRZEZ MYSZY
. . . . . JABŁKO Z WIGILII BOŻEGO NARODZENIA
. . . . . ORZECH NADGRYZIONY PRZEZ WIEWIÓRKĘ
. . . . . ORZECH Z WIGILII BOŻEGO NARODZENIA
. . . . . SER NADGRYZIONY PRZEZ MYSZY
. . . . MOCZENIE NÓG W CIEPŁEJ WODZIE Z SOLĄ
. . . . MYCIE TWARZY WÓDKĄ
. . . . NAKŁUWANIE [dziąsła, dziury w zębie]
. . . . . DRZAZGA Z KRZYŻA CMENTARNEGO
. . . . . DRZAZGA Z TRUMNY
. . . . . GWÓŹDŹ Z TRUMNY
. . . . . GWÓŹDŹ ZE ZNALEZIONEJ PODKOWY
. . . . OKADZANIE
. . . . . DYM Z PALONEGO GNIAZDA TRZMIELA
. . . . . DYM Z PALONEGO ROZCHODNIKA
. . . . . DYM Z PALONYCH NASION LULKA/SZALEJU
. . . . . DYM Z PALONYCH WIANKÓW Z BOŻEGO CIAŁA
. . . . OKŁADY
. . . . . AŁUN

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. . . . . CEBULA PIECZONA Z PIEPRZEM CZARNYM
. . . . . CEBULA TŁUCZONA
. . . . . CHRZAN Z OCTEM
. . . . . CZOSNEK Z SOLĄ
. . . . . DENATURAT
. . . . . JODYNA
. . . . . KORA DĘBU
. . . . . LIZOL
. . . . . MĄKA Z BOBU, *mąka bobowa*
. . . . . NAWÓZ SZTUCZNY
. . . . . OCET
. . . . . ODWAR Z ZIÓŁ ŚWIĘCONYCH, *ziele święcone* NA BOŻE CIAŁO
. . . . . OWOCE GŁOGU TŁUCZONE
. . . . . SPIRYTUS
. . . . . WÓDKA
. . . . PALENIE FAJKI
. . . . PALENIE PAPIEROSÓW
. . . . PICIE
. . . . . ODWAR Z KORY DĘBU
. . . . . WÓDKA
. . . . PŁUKANIE
. . . . . MOCZ
. . . . . ODWAR Z BLEKOTU
. . . . . ODWAR Z DZIEWANNY
. . . . . ODWAR Z KORY DĘBU
. . . . . ODWAR Z ROZCHODNIKA
. . . . . ODWAR Z SOSNOWYCH SZCZYP SMOLNYCH
. . . . . ODWAR Z SZAŁWII
. . . . . WÓDKA Z KAMFORĄ
. . . . PRZYSTAWIANIE PIJAWEK
. . . . SMAROWANIE, NACIERANIE ZĘBÓW
. . . . . CHRZAN
. . . . . CZOSNEK
. . . . WYRYWANIE ZĘBÓW
. . . . ZAKRAPIANIE
. . . . . SMOŁA Z FAJKI [sok z fajki, sok tytoniowy]
. . . . . SOK Z KRUSZYNY
. . . . ZAMAWIANIE
. . . . ZATYKANIE USZU
. . . . ZAŻEGNYWANIE
. . . . ŻUCIE TYTONIU

. . . *OBJAWY*
. . . *CZAS LECZENIA*
. . . *MIEJSCE LECZENIA*
. . . *OSOBA LECZĄCA*
[…]

The lexical system shown above reveals the paradigmatic structures of the language, which structure is different from the paradigmatic relationships occurring in a natural language (or terminology) and those relationships occur between the natural language terms being equivalents of the key-word terms.

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The lexical material collected by us turned out to be exceptionally difficult for the purpose of creation of terminological nests, resulting e.g. in a large diversity of such nests. The nests do not create ordinary nest systems but rather represent term clusters which originate either from one type of relationships occurring between the terms (e.g. thematic relationships, generic relationship) or constituting a specific situation record (a scenario), or being simple enumerations of terms belonging to a nest. The nests are a type of association fields connecting basic terms, naming main objects of research, with the associated expressions in accordance with the undetermined strictly and unspecified association relationships in the vocabulary or the relationships which are not hierarchic in nature. As a result, a specific knowledge map was developed. At the present stage, such diagrams have been prepared for the following culture categories: ethos, customs, demonology, magic and folk medicine. Consequently, we have managed to build a number of knowledge organization diagrams in the form of term nest systems. Some of them will be presented in my paper. It was possible to generate out of such a diagram key-word languages or rather language vocabularies that are the most often used in the present-day indexing and retrieval systems.

The system knowledge of the non-linguistic reality is expressed in the terminological system. Terminology is presented in a nest system which allows us to locate particular terms in the respective field which determines the terms' meaning and usage. What are derived from the terminology system applied in the ethnographic-ethnological descriptions are proper key-word lists that are used for the description and retrieval of documents and information.

The diagram contains (Robotycki, Babik 2002) e.g.:

- meteorological system elements mixed with other elements, or the whole-part relationship, e.g.

CMENTARZ
. GROBOWIEC
. NAGROBEK
[…]

- elements of the system produced on scientific grounds, or non-linguistic system elements, e.g.

CNOTY ZDOBIĄCE
.. HONOR
.. MĄDROŚĆ
[…]
CNOTY PRAKTYCZNE
.. CIERPLIWOŚĆ
.. PRACOWITOŚĆ
[…]

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- in many cases, the system elements are in fact the scenarios of completed situations, e.g.

POST
.. WIERZENIA
. POPIELEC
..WIERZENIA
.. POSYPYWANIE
…GROCH
…POPIÓŁ
[…]

As we can see, terminology was presented in a nest system which allows us to locate particular terms in a respective field that determines the terms' meaning and use. To express mutual relationships between the terms, we have used dots and indentations which basically do not reproduce any hierarchic relationships but, depending on the term nest type, they indicate certain types of unspecified relationships. The category names are marked with bold print, e.g. **WIEK DOROSŁY**. In that part, we also introduced the terms marked in italics. Their role is only to order terminology, e.g. *CHOROBY KOBIECE*. Next to headwords, we added synonyms in italics after a coma, e.g. BÓL BRZUCHA, *Morzysko, Rzezanie, Rznawka*. We placed explanations in square brackets [ ], e.g. SŁUŻBA [pracownicy najemni], or auxiliary terms, e.g. PASTERKA [msza w wigilię Bożego Narodzenia], or detailed terms, e.g. DAR [prezent, podarunek, upominek]. In that way, we indicated preferred terms which represent a number of key-words interrelated with the terms in the natural language by synonymic relationships. The plant list contains "zob." (cf.) references to indicate corresponding terms, e.g. "ANYŻ zob. biedrzeniec", or the "zob. też" (cf. also) references to indicate the association relationships, e.g. "JEŻYNA zob. też CZARNA BORÓWKA."

A previous nest term listing was used to generate a language key-word vocabulary. The key-word composition in the vocabulary is presented below (Babik and al. 2005):

BÓL STAWÓW
BÓL TĘPY
BÓL USZU
BÓL W BOKU
BÓL W PIERSIACH
BÓL ZĘBÓW
ból zob. KOŁTUN
BÓL ŻYŁ
BRAK APETYTU
bratek zob. FIOŁEK
BRODAWKI
BRUD
BRUDNY
BRUKIEW
BRZOZA

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BRZUCH
brzydnica zob. PADACZKA
BRZYTWA
BUKWICA
burak ćwikłowy zob. BURAK SŁODKI
BURAK SŁODKI
BURSZTYN
BUTELKA
BUTY
BYDŁO
BYKOWIEC
BYLICA
CAŁOWANIE
CEBULA
CEBULA ROSNĄCA W DONICZCE
CEGŁA
chera zob. MÓR
CHININA
CHLEB
CHLEB POD PAZUCHĄ
CHLEB RAZOWY
CHODZENIE BOSO
cholera zob. MÓR
[…]

The key-word vocabulary constitutes only one element of the key-word language lexical system for ethnology. The vocabulary is supposed to fulfil a practical function in the ethnographic material description and retrieval processes. We have adopted an alphabetic system of key words. The key words are primarily nouns and adjectives as well. The adjectives were recognized as key words when the corresponding nouns exist, e.g. CIEPŁY. The key words were indicated by capital letters. The terms which are not key words are spelt with small letters. The "strange" form of that type of key words being lexical units is determined by the nature of the terminology used in the field represented here, e.g. WÓDKA TRZYMANA W USTACH TRUPA [vodka kept in the dead corpse's mouth]. That is a certain key phrase. Many key words are accompanied by various supplements and additions with various functions. The nature of such supplements results primarily from the "folk" source of ethnological terminology. The expressions placed in parentheses ( ) constitute integral parts of the key word, and they will be placed in the retrieval characteristics together with the key word, e.g. BEDKA (grzyb). Some key words are accompanied by definitions and explanations placed in square brackets [ ] to specify the scope of meaning, e.g. CZARY [leczenie czarów], and/or connectivity, e.g. ZAPALENIE WÓDKI [pijaństwo], or present-day meaning, e.g. PRZESILENIE [podźwignięcie], or specifications of the class content, e.g. GWOŹDZIK [przyprawa]. The terms of the same scope are connected by the "zob." [cf.] reference to the lexical unit accepted in the constructed language, e.g. chybnięcie zob. PRZEŁAMANIE (that also concerns common disease names, e.g. ból zob. KOŁTUN), or, when the given folk expression is the name of various diseases, reference is made to various lexical units, e.g. gościec zob. KOŁTUN, REUMATYZM.

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CONCLUSION

Research and project works exceeded our team's expectations. They turned out to be more difficult than initially expected. They made the researchers and the system designers aware of the types of problems to be solved to create suitable retrieval tools for the system related to the filed that is based on many diverse and often incoherent theories.

Our research allowed us to propose a new procedure for building the indexing and retrieval language that would be quite different from the one applied before and based on previous creation of knowledge organization structures in the given field, and only later followed by generation of a proper information and retrieval language based on such a structure. It seems to me that our new procedure can be used in those fields where the object of research is very incoherent, and, at the same time, where coexist various and equal scientific theories using the same terminology. As our research and project works have indicated, the new research and project procedure can be applied successfully in the building of information and retrieval languages designed for the systems representing diverse heterogeneous terminological systems.

The proposed solution used in both *System...* and *Vocabulary...* is applied to solving the problems of expressing multi-culturality in the system of knowledge organization and the folk culture lexical system. One can clearly notice our intention to expand unspecified paradigmatic relationships, which primarily results from our wide consideration of association relationships in comparison to other proposals.

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