Translating Nature Terminology

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By

Wojciech Kasprzak

CAMBRIDGE SCHOLARS
SCHOLARS

P U B L I S H I N G

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ACKNOWLEDGEMENTS

NOTES TO THE READER

1. The following abbreviations are used for the sake of convenience:

Publications

OALD	Cowie, A P, ed. 1989. *Oxford advanced learner's dictionary*. Oxford: OUP.
CED	Sinclair, John, ed. 1995. *Collins Cobuild English dictionary*. London: HarperCollins Publishers.
Webster's	Gove, Babcock Philip, ed. 1993. *Webster's third new international dictionary*. Cologne: Konemann.
BBC	Drive Publications Limited, eds. 1981. *Book of the British countryside. Great Britain*: DPL.
BM	Blamey, Marjorie, Richard Fitter, and Alastair Fitter. 2003. *Wild flowers of Britain and Ireland*. London: A & C Black.
JAK	Anioł-Kwiatkowska, Jadwiga. 2003. *Wielojęzyczny słownik florystyczny*. Wrocław: Wyd. Uniwersytetu Wrocławskiego.
KCz	Czekierda, Krzysztof. 1992. *Słownik ekologiczny polsko-angielski*. Warszawa: Terra Sana.
	Czekierda, Krzysztof. 1995. *Słownik ekologiczny angielsko-polski*. Białystok: Wyd. Ekonomia i Środowisko.

Other than publications

BAP	Biodiversity Action Plan
CORINE	Coordination of Information on the Environment; the international programme owing to which the PHYSIS (not an acronym, to my knowledge) database of natural habitats has been created.
EUNIS	European University Information Systems (used below to identify one of the databases of natural habitats)
NBN	National Biodiversity Network
NVC	National Vegetation Classification

2. The analysed sources are often bilingual publications, where the original text may be placed a) on the same page as its translation b) on the neighbouring page c) a number of pages later in the book. In the first case, the page number is given only once, rather than after the quote and its target language version. The same applies to one other source: Kossak (2001), which is not a bilingual publication but page numbers exactly correspond in the Polish and English editions.

3. The original texts are quoted with all the errors that they contain. Corrections are suggested only for those mistakes that distort the view of the natural world. The remaining ones, no matter how serious, are largely ignored.

INTRODUCTION

This work has been inspired by the lack of publications on the difficulties the translator faces when confronted with texts rich in nature terminology. The other source of inspiration was the simultaneously observed increase in popularity of bilingual and multilingual publications about nature, whose reliability left much to be desired. I then asked myself what made so many translators distort the image of the world in the target language so often (in the texts I analysed the target text was either English or Polish). The search for the causes led me to an attempt to find solutions and recommendations, both general and specific, which would sensitise translators to the problem and help them take decisions in particular translation processes. Hence the basic objectives of this book are to show that:

1. the main hindrance in the translation of nature terminology is differences in the categorisation of the world in various languages.
2. another obstacle is the multitude of ways in which the world can be categorised within one language, which is brought about by the existence of numerous scientific disciplines, schools of thought, changeability in time, overlap of specialist and folk categories[1] and by the resultant necessity of intralingual translation.
3. awareness of these facts helps translators avoid errors.
4. this awareness can be raised, e.g. by the text analysis based on cognitive linguistics, in which equivalence is established on the level of imagery. This means that potentially equivalent terms are compared in respect of the degree of their conventionalisation and dimensions of imagery: salience, schematicity and perspective[2].

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[1] Despite voices calling for making a distinction (Habrajska 1996: 223) between classification, as referring to scientific activity, and categorisation as connected with the folk experience of the world, this work does not confirm the existence of clear-cut boundaries. Following Jolanta Maćkiewicz, a Polish scholar particularly interested in scientific and non-scientific categorisation (see Maćkiewicz 2004, 1996, 1992 and 1991), I will be using both terms interchangeably.

[2] I use Langacker's terminology, presented in a simplified manner in 1.3.1. below, pp. 15-16.

5. up-to-date extralinguistic knowledge is of great significance for the translator. It is indispensable to determine whether potentially equivalent terms are really equivalent and whether the categories they name have similar borderlines, membership and prototype.

6. it is imperative to approach dictionary equivalents with caution. It concerns both general and specialist dictionaries as they contain errors and offer a range of possibilities without any indication which are obsolete or rejected as inadequate in view of progressing research.

7. specialist texts include non-specialist terminology and vice versa, therefore it is important for the translator to examine terminological equivalence on the level of imagery irrespective of the type of text in which they appear. Errors in the use of nature terminology are visibly ignored, especially in belles-lettres, where, though sometimes irrelevant, they equally frequently lead to the distortion of the world presented in the book (e.g. when a birder claims that he can hear a moorhen on the canal (the moorhen cannot swim), or when the translator makes zoologists look for sousliks (which live in open landscapes and are unable to climb) up in a giant tree in the rainforest.

Following Putnam (reported in Muszyński 1996: 40), I have assumed that scientific terms concerning nature comprise a more precise 'description' of reality and as such they deserve propagating, as opposed to folk terms. While this assumption does not seem to be controversial in reference to informative texts, in belles-lettres it is valid in the cases justified by the context. In each case I try to prove it in my analyses.

I have also assumed that in order to show the complexities of categorisation it is necessary to collect a large database. The choice of terms stems from the analysis of the greatest number of Polish non-specialist publications translated into English I have managed to find, specialist texts mainly on phytosociology, especially those concerning the EU Natura 2000 programme, and translations of novels and other narratives written by several Polish and British authors (e.g. John Fowles, Gerald Durrell, Czesław Miłosz, Jarosław Iwaszkiewicz), which abound in nature lovers and experts, so also in relevant terminology. My analysis has yielded a rather diverse set of terms that seem to cause translators a lot of trouble. They all concern the natural world understood as both animate and inanimate nature affected by forces independent of human beings as well as by human activity. In my search I have been limited by my personal knowledge and verification abilities – hence favouring phytosociological

and ornithological questions. All comments are based not only on my intuition but also on almost eighty specialist sources and consultations with specialists – biologists and environmentalists from the University of Warsaw and the Institute for Land Reclamation and Grassland Farming at Falenty. Although I have not carried out questionnaire research into what images readers of the original and the translation tend to have behind the terms examined, my interpretations of their possible reception stem from the fact that the dictionary definitions reflect the frequency of usage research, and that the data I have gathered give insight into typical images in the mind of numerous translators.

I concentrate on lexical problems, mentioning grammar only where it is difficult to separate both of them without engendering confusion. I do not intend to study 'fundamental concepts going to the heart of our conceptual systems: space, time, causation, event structure, aspect, evidentiality, fundamental classification of objects' (Lakoff 1987: 329), but 'superficial conceptual differences [such as] vocabulary, specialized terminology, words for obscure concepts' (ibid.: 328-29). Although we can agree that 'concepts that are spontaneous, automatic, and unconscious [those that are grammaticized or metaphorised] … simply have a greater (though less obvious) impact on how we understand everyday life than concepts that we merely ponder' (ibid.: 335), superficial, i.e. lexicalised conceptual differences, pose enough translation problems. Besides, among concepts that we 'merely ponder', such as those expressed through vocabulary, a gradation of spontaneity, automaticity and consciousness in use is observed. Short words can be juxtaposed against long cumbersome labels. The existence of a single word to denote a conceptual category bears evidence to the importance of a category for a language community (see Maćkiewicz 2004a: 53 or Dougherty 1993: 163-164).

In Chapter One: *Terminological and cognitive approaches to the categorisation of nature* I come to the conclusion that terminology is a product of categorisation, which is context-dependent. In translation context-dependence is particularly obvious, therefore it is necessary to analyse terminology within a cognitive framework rather than within the methodology used in terminological studies. The cognitive approach is adopted for a number of reasons: 1) finding the middle way between extreme universalism and relativism; 2) seeking to eliminate the oppositions dictionary/encyclopaedia and synchronic/diachronic studies (the appreciation of context, not just co-text); 3) ascribing an important role to categories in our thought organisation; 4) viewing categories as relative entities organised around prototypes rather than having a set of shared properties which are sufficient and necessary for a member to be included.

One of the reasons is given more prominence: categories are proved to show prototypical effects and are characterised by (E. Rosch's nomenclature): background framing, fuzziness, gradability and stretchability. Such a view of categories allows us to account for the observation that boundaries between specialist and non-specialist categorisation are blurred. Three cognitive theoretical frameworks for translation studies are analysed: Hejwowski's, Gutt's and Tabakowska's with a view to applying them selectively in my own analysis of nature terminology in translation. Combined with these is another theoretical framework – the linguistic view[3] of the world developed by Bartmiński, Tokarski and others. Unlike them, I do not try to provide multi-faceted descriptions of the view of the fragment of the world but rather concentrate on what interpretation or image a particular term projects in a given context.

In Chapter Two I present the categorisation of nature in Polish and English specialist texts. Contrary to all recommendations and idealistic visions[4] features of categories resulting from their prototype-oriented structure (see Ch.1.3) remain true for specialist writings, too. They are pinpointed as the main cause of translation problems. The role of background framing is enhanced since terminology is shaped by the author's (the interpreter's of the reality) scientific and practical interests and his/her cultural perspective. For instance, if a habitat is interpreted as *mechowisko* in the Polish documentation, it is possible to translate it into the Natura 2000 category montane and lowland alkaline fens in the form of flush vegetation sedge beds and moss beds, which guarantees its protection. If it is classified as *turzycowisko (szuwar wysokoturzycowy)*, it cannot be matched with the above Natura 2000 category and is stripped of protection. The chapter discusses intralingual and interlingual translations of woodland habitats (such as *świerczyna na torfie, dąbrowa świetlista, alder swamp forest, bog woodland*) and non-forest habitats (such as *murawy napiaskowe, łąki trzęślicowe,* raised bog, fen) from the language of foresters into the language

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[3] This is one of the three possibilities for the English name of the framework. The others I have met are: 'image' and 'picture'. With regard to Grzegorczykowa's definition of *językowy obraz świata:* 'the conceptual structure characteristic of a specific language with the help of which people who speak this language classify/ interpret the world' (2004: 45) it seems that 'view' is the best choice. Since, however, the English summaries of the articles published in the volume *Językowy obraz świata* (Bartmiński ed.: 2004) consistently use 'image', I follow them when referring to this source. Sometimes I write 'picture', as it appears frequently in the relevant literature (cf. Bartmiński and Tokarski (eds): 1998 or Zinken: 2008).

[4] See e.g. Szujecki (1998: 29-30), Felber and Budin (1994: passim).

of nature conservationists as well as attempts to correlate names of species which vary regionally, historically and according to different taxonomic systems. I also present controversies within the same discipline over such terms as mire, which some authors consider a subcategory of peatland, while others as a category superior to it.

Chapter Three details the categorisation of nature in Polish and English texts for non-specialists. It is observed and exemplified that non-specialist texts include a lot of specialist terminology and it is difficult to determine the boundary between what is specialist and what is not. The view of the world emerging from them never has just one perspective. Examples (*barć*, *bór/las/puszcza, grąd, łęg, ostoja, szuwary, wrzosowisko*, buntings, copse/coppice/grove, game birds, midges, waterbirds/waterfowl/wild fowl, etc.) are analysed in terms of a degree of departure or similarity of category members from the prototype, encapsulated in an equivalent expression in English and Polish at the level of: 1) conventionalisation (unequivocal imagery, gestalt perception vs. visualisation with effort); 2) salience; 3) schematicity (schematic presentation vs. instantiation); 4) perspective. According to Tabakowska, who follows Langacker, these are components of the level of imagery at which all translations should be analysed in order to aim at the best quality[5]. The shifts of imagery are also considered for onomatopoeia (mainly the notation of animal calls) and in the case of puns using nature terms.

In Chapter Four the concept of 'linguistic view/picture of the world' is called upon again in order to show how translation errors give a distorted linguistic view of the world. Firstly, an attempt is made to use Hejwowski's typology of errors for various examples of mistranslated nature terminology (among the types are: unjustified borrowings and domestication, calques, overspecification, underspecification (using hypernyms), etc.). This is followed by an error analysis based on abuse of such features of categories as stretchability or fuzziness with regard to a particular background framing. In each case the result is the wrong image. The whole series of wrong images contributes to the distorted view of the world.

The whole work aims to enhance the significance of the didactic mission of translation, in this case reflected in promoting a more scientific view of the natural world through terminological accuracy. Translators must remember that there is nothing degrading in assuming that the readers of the target language text expect the natural features of the source language world

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[5] In contrast to the application of Langacker's concepts in Tabakowska (1993), in this book it is sketchy and subservient to its other objectives.

to be different and therefore worth learning about, insofar as gradual learning about the diverse world around them is worth their effort.

Thus, translation must be used to 'teach' new concepts or new categorisations of concepts to representatives of a foreign culture by applying correct lexical labels. Eva Hoffman's experience seems to validate such a claim. In *Lost in Translation*, after describing the pains of learning to rename objects she knew from Poland in the language supposed to become her new 'mother tongue', she breathed a sigh of relief when taught names of flowers that she had not formed any concepts of in Cracow. She notices '[f]or now, there are no Platonic azaleas, no Polish hyacinths against which these are compared. The language of this is sufficient. I am here now' (Hoffman 1998: 280). If so, and if we take into account the fact that modern people are increasingly less familiar with the surrounding animal and plant life, it becomes self-evident that when a publisher decides to release a book or an album in which nature is given a degree of prominence, the chance to be truly educational cannot be disregarded by the translator, who happens to attach more value to, for example, high technology or literary theory. Unfortunately, as the corpus collected for this study shows, the chance to feed the knowledge-hungry readers is often ignored. Postulating the translator's didactic responsibilities, I have a sense of educational mission myself, which in this book acts as a stimulus for including rich exemplification in the chapters dealing with the images of the natural world. Yet, in my proposals of corrections for mistranslated passages from belles-lettres I am never guided by orthodoxy, primarily looking after the text's logic and coherence rather than terminological precision at any cost. Suggestions of practical solutions are meant to help translators as I subscribe to Newmark's opinion: 'Note that translation theory is concerned with choices and decisions, not with the mechanics of either the source language (SL) or the target language (TL) … . As with much literature *à thèse*, the examples are often more interesting than the thesis itself' (Newmark 1988: 19).

However, the ensuing pages are not simply thronged with examples for the purpose of impressing or distressing the reader. What at first glance, especially in Chapter Two, may seem an exaggeratedly ample exemplification of but one problem is, actually, an elucidation of its innumerable aspects. It must be immediately noticed that these are not purely linguistic aspects, as they can barely be separated from extralinguistic ones. If the data provided give an impression of overabundance, one must realise that they touch upon a mere fraction of possibilities. Overwhelming diversity and perpetual changeability underlie the categorisation of the world. As

categories need to be translated from discipline to discipline and from language to language, the same, unavoidably, plagues the translation process. A study of translation cannot responsibly claim that such complex matters do not require detailed, often interdisciplinary, exposition.

CHAPTER ONE

TERMINOLOGICAL AND COGNITIVE APPROACHES TO THE CATEGORISATION OF NATURE

1.1. A non-terminological approach to terminology

While the bulk of the work concerns terminology, it is not strictly terminological. Translation problems cannot be explained only through the tools offered by terminology, understood as a discipline investigating relationships between terms and concepts. This is because:

> [t]ranslators and terminologists work in quite different modes, … [t]ranslators generally attempt to match the largest possible units of meaning as they arise in a specific text; terminologists have no interest in temporary and casual collocations of concepts as they are brought into a particular relationship by a writer. Translators work with concepts and terms in context; terminologists isolate terms from context and fit them into an abstract system of concepts. (Sager 1997: 251)

It must be immediately stated, though, that terminological studies come in handy as they explain why so much intralingual translation must be done before interlingual transfer begins. Besides, whereas theoretically translators 'move from the linguistic item to the concept in order to find a corresponding linguistic realization in another language', in practice, like terminologists, they often 'need to establish identity among the concepts' (ibid.: 259) first, and having done so, find or create the matching linguistic item. The terminologist's role consists in trying to achieve an ideal by an adequate formulation of terms and imposing standards for everyone to use. The translator should help impose standardised terms to the degree contexts allow them to do so. But s/he does not work within the ideal world. All the time confronted with a messy reality and a wide variety of recipients, they have to make compromises over various expectations. As Sager, observes '[t]he greater the differences between speakers the greater

the need to use a higher proportion of definitions, paraphrases and circumlocutions rather than standardized terms' (ibid.: 258). What is more, there must be an agreement among recipients on the desirability of the relaxation of 'the aesthetic, emotive and other non-informative requirements of language in order to enjoy the greater efficiency created by standardized reference' (ibidem). Terminologists draw our attention to certain facts of significance to the translation process:

1) there is general language and special languages equal to the number of scientific disciplines;
2) main differences between these two occur in their lexicon;
3) scientific disciplines assign diverse concepts to the same objects and classify concepts according to varied criteria, which give rise to rich terminology;
4) concepts hidden behind superficially identical or similar terms can be different across languages;
5) there are terms which function in specialist contexts as well as general ones, but have acquired different meanings in each;
6) such terms in general language tend to be polysemous;
7) there are international norms and requirements concerning terms and nomenclature specifying, for instance, when it is better to assign a new concept to an already existing name, or that new names should be short, otherwise they will be abbreviated anyway, engendering ambiguity (cf. Felber and Budin 1994: 150-51).

From the translator's point of view it is not important whether we ought to talk only of specialist terminologies or of specialist languages (sublanguages of the general language). Neither should s/he worry at what point general language becomes specialist language (cf. Pieńkos 2003: 258-263). For practical purposes it suffices to remember that there are texts, which J. Delisle calls pragmatic, and which serve mainly to inform, with an aesthetic aspect assigned a secondary role (cf. Pieńkos 2003: 271). In such texts terminological precision cannot be sacrificed so as to satisfy the recipients' taste for stylistic or aesthetic sophistication. Nevertheless, the translator should remain alert to features of a particular specialist text type such as conciseness, preference for nominalisation and passive voice, etc. The translator cannot forget that s/he stands no chance of escaping terminological issues even if s/he is preoccupied with belles-lettres. In

fact, the division between literary and specialist texts is artificial since terminological problems concern literary texts too, and there they are, actually, most difficult to solve (cf. Pieńkos 2003: 242-43, 91 or Hejwowski 2004a: 249). Although some translation theorists, like Gutt, seem to justify the use of imprecise and erroneous terminology if for the projected recipient it does not seem to be optimally relevant (Kasprzak 2008: 181), others support terminologists in their struggle for terminological order. For example, Pieńkos (2003) advocates a thorough and comprehensive education of translators because they are responsible for keeping the best standards to the degree that they should correct texts in which 'linguistic and terminological anarchy coupled with unclear and incoherent argumentation rule' (2003: 282-84). Hejwowski (2004b: 142) condemns errors made by translators who have failed to inquire about certain general or specialist facts, notably names of animal species. In his book, *Translation: A cognitive-communicative approach*, he includes two quotations, which best summarise the attitude endorsed in the present work. The first comes from Lehrer:

> If the typical readers do not have aspens or elms where they live, should a translator select a different tree? I would say 'no' for these texts and for other works of fiction, since a literary translation should be aimed at an ideal reader – one who is knowledgable about the source culture, rather than a typical, less sophisticated 'average' reader. (Hejwowski 2004a: 107)

In the second, by R. T. France, the word 'author' can be easily replaced with 'translator': 'It is a poor author who aims to communicate only with the lowest common denominator of his potential readership' (ibid.: 109).

Attention that translators ought to pay to both scientifically defined and folk terms inevitably guides them to the term's referents in the shape of concepts. Remarkably, most problems originate at this level since, as Wilhelm von Humboldt underlined, 'each language describes and expresses, in a way peculiar to itself, the world outside, creating their own image of this world. Therefore each language presents its own interpretation of the world' (Pieńkos 2003: 232, translation mine). In effect, translators often fall into a trap trying to render a term in the target language, while the real issue is to find 'a linguistic equivalent of a concept or phenomenon' (ibid.: 285). Pilegaard (1997: 165) puts the same idea in the following way: '… in practice, translators should always check the comparability of the concepts at issue "by looking closely at the words people use"' and stresses after Alexander and Slater (1987) that it is 'the common fallacy that scientific discourse in general and medical discourse in particular is subject to straightforward objectivity'. An important related

question is that languages determine a term's denotation in different ways. For instance, French *outillage* covers the meaning of the English 'tool' and extends beyond it, embracing also measuring and holding devices (Felber and Budin 1994: 86-7) or the German *Schlagball* and the English 'cricket' share the equipment used in the game but have dissimilar rules (ibid.: 118). Pieńkos adds that each word (term) has its own 'usage zone', 'sometimes different in a literary text than in a scientific one, where the boundaries between zones are fuzzy and move here and there from time to time' (2003: 277). He emphasises that terminological differences, though to a lesser extent than in the social sciences and humanities, 'exist within exact sciences and engineering, but they are less obvious and more subtle' (ibid.: 270). He also warns that translators may encounter 'terminology, which is nothing but the author's *ad hoc* creation bearing features of professional jargon' (ibid.: 244). This is something on which conscientious translators waste a lot of their time, looking for established equivalents of what has not been established yet at all.

The most interesting aspect of the terminologist's work, with implications for translation, is the examination of 'denotational relationships within scientific vocabulary, which occur simultaneously in many disciplines and often outside them, i.e. in general language [which according to Knobloch and Schaeder (1994) are between]: 1) a word and a term, 2) the meaning of the word and the concept 3) the language of teaching and the scientific language and 4) the encyclopaedia and the dictionary.' (Pajewska 2003: 31). Pajewska goes on to enumerate such examples of Polish words as *analogia, kompleks, model, proces, struktura, system*, etc. As they resemble English words, no translation is necessary. However, it must be stipulated that their senses and usage do not overlap in both languages. Apart from such extremely multi-purpose words there is a much wider range of those with a narrower usage but exploited throughout general language and one or two sublanguages: *bagno, uroczysko* or *łęg*, which will be discussed *in extenso* in Chapter Three.

The complex relationships sketched above result in such phenomena as synonymy, homonymy, polysemy, false friends, etc., which plague translators. Terminological studies assist in overcoming them through the publication of good specialist dictionaries. However, such dictionaries usually present the ideal, context-free options. Theoretically, in contrast to general language dictionaries, they understand synonyms as terms that can be substituted for each other in the same context. Practically, inconsistencies can creep in and synonyms may become 'words with a similar meaning'. In general, synonymy is regarded as undesirable in them. Whatever the wishes, such postulates of terminologists as unequivocality

of meaning and contextual autonomy of terms often remain postulates because of the multiple naming of the same concepts and focusing on different features of the same referent in different specialist texts and because of conflicts between everyday uses and specialist uses (see Pajewska 2003: 110-111).

Pieńkos goes as far as to talk about pathology in terminology. Consisting in ambiguity, it stems from 'the [uncoordinated] creation of concepts and their systems in different civilisational and cultural circles' (Pieńkos 2003: 227) and 'the lack of unanimity among professionals' (ibid.: 316). Robinson illustrates this situation with his search for a Finnish equivalent of 'flip-off seal' needed for a translation of instructions for a pharmaceutical product. He obtained three very different but confidently formulated answers from three medical doctors, of which one sounded too colloquial and one overextended in meaning. Upon such findings he reflects: 'This is a good reminder that even specialists belong to more than one community; and even within one community they often maintain two or more registers, one technical and "official", one or more slangy and informal' (1996: 201).

In conclusion, for translation purposes terminology must be studied in context: 'The understanding of terms relies not only on familiarity with the definitions of concepts that they stand for but also of the texts they are used in. ... [T]erms function differently in strictly scientific texts, or in popular science or didactic publications' (Pajewska 2003: 52, translation mine). However, the context cannot be limited merely to the co-text. It should be the broadest possible, encompassing the user's knowledge, experience, views and any mental processes likely to take place in the minds of both the author and the recipient of the text that comprises terms. This necessitates looking for a cognitive approach to translation – in our case, to the translation of nature terminology.

1.2. The cognitive approach

A cognitive model has been chosen to account for translation problems primarily because, as Hejwowski puts it: 'Producing a text, translating a text and reading a text are all basically mental processes. Therefore in our opinion they should be dealt with by a cognitive theory, and not by one which limits its scope of interest to texts only' (Hejwowski 2004a: 258).

Another concisely formulated set of reasons can be repeated after Tabakowska:

> CL [Cognitive Linguistics], with its objective to establish probabilistic tendencies rather than deterministic rules, and with its pragmatic rejection of the economy of description and reductionism as basic methodological principles, opens new perspectives. It offers a theoretical framework for a more adequate definition of translation equivalence, and thus makes it possible to formulate some normative principles for translation assessment. It provides additional evidence for the claim that a "theory of translation" does not, and cannot, exist as an autonomous entity, in any absolute sense.' (1993: 32)

More specifically, cognitivist research has thrown some new light on one of the mental processes of great significance to translation – categorisation. Principles of categorisation are placed among general principles of cognition. It also explains why translation is possible even when conceptualising systems of two languages are very different by enhancing a role of universal basic experience and human conceptualising capacity. In other words, it enables us to draw optimistic conclusions concerning translatability, impossible with the adoption of the extreme version of Whorfian relativism. This version leads to a conclusion, protested by many authors[1], that translation is impossible – which runs counter to facts. At the same time, over-optimistic universalism is cut down to size. As Wierzbicka points out, Whorf exaggerated, because for effective communication we can always resort to paraphrases and circumlocutions in translation. But she hastens to underline that it can only be done at a cost – by 'using longer, more complex, more cumbersome expressions than those which we can use relying on the habitual ways of speaking offered to us by our native language' (1997: 7). Besides, cognitivism has tried to lift the opposition dictionary/encyclopaedia, placing emphasis on context-dependence and the role of extra-linguistic knowledge in linguistic studies, which underpins the line of argumentation on the deceptiveness of reliance on dictionary knowledge developed in the present work. The opposition between synchronic and diachronic studies has vanished too, which enables explanation of certain difficulties in translation, like those with *gajówka* (see pages 60 and 137 below) or *jodła/świerk*[2] (Ziółkowska 1983: 139). In both oppositions staking out demarcation lines is virtually impossible. The futility of looking for the limits of knowledge that the

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[1] See e.g. Hejwowski (2004a: 14-15), Korzeniowska (1998: 71), Newmark (1988: 72-73).

[2] In 19th century Poland, north and east of Warsaw, the fir (*jodła*) bore the name which is today given to the spruce (*świerk*). In turn, the spruce was called 'fir'. Frequent mistranslations of these names can be traced back to this historical-socio-linguistic fact.

translator should possess is most vividly illustrated, e.g. in Tabakowska (1999: 54-60). In turn, the inevitability of intertwining synchronic and diachronic, linguistic and extralinguistic data is confirmed in a number of works on specialist languages and linguistic images of the world[3]. Pajewska concludes that derivational processes and tendencies observed in them as well as the representation of given thematic vocabulary are connected with the changes which occur outside language. Although in her work she focuses on diachrony, she notices that 'it is necessary to take into account aspects of synchronic description, because language changes, i.e. diachronic phenomena are eventually a result of the functioning of language – synchrony, which is always a start-off point' (Pajewska 2003: 215, translation mine).

Cognitivism as depicted by Lakoff is optimistic when it comes to translation in that it separates understanding from translation: 'Translation can occur without understanding, and understanding can occur without the possibility of translation' (Lakoff 1987: 312). This is connected with the relativisation of the commensurability of conceptual systems. Unlike Whorf, who claimed that if conceptual systems of two languages are radically different, they cannot be compared in any way, Lakoff is able to distinguish five criteria by which the systems can be compared. If they are incommensurable by one criterion, they may be commensurable by another. All depends on the formulation of the question. Commensurability is a gradable category (ibid.: 322). The main implication for translation is that translation is possible to a greater or lesser degree, or if it is impossible to translate one language (let us keep here to Lakoff's formulation, acknowledging Hejwowski's (2004a: 112) insistence that one does not translate languages but texts) into another sentence by sentence, preserving truth conditions, we can rely on the criterion of understanding or use, or framing, or organisation. To put it in a more straightforward way, language is not everything, it does not reflect our thoughts fully and equivalently. It is 'a convention which may, but does not have to, be an instrument of our thoughts' (Lewandowska-Tomaszczyk 1996: 67, translation mine). It is only a choice of certain phenomena, a huge mass of which escapes human cognition (cf. Anusiewicz 2004: 282). In other words, our language offers only an approximation of what our conceptual systems store and so do translations from one language into another. Once it is realised, demands concerning equivalence become more realistic. Lewandowska-Tomaszczyk calls cognitivism, as represented by Lakoff, Langacker, Fillmore and others, 'enlightened' relativism, which is universalist

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[3] E.g. Maćkiewicz (1991), Marczewska (2002) or Pajewska (2003).

in their attitude to the cognitive base of all people, but assumes the existence of concepts specific to a particular language. Lakoff notices that in the case of concepts such as 'the basic level perception of physical objects' or ' "kinesthetic image schemas": structured experiences of vertical and horizontal dimensions, balance, inside and outside, and many others' translation 'is often possible, if not immediate' (1987: 312). But then he turns to concepts which pose difficulties in translation and describes their range as 'enormously wide'. This points out to a more pessimistic side of cognitivism – a tendency to find cases of untranslatability. However, as elaborated in section 1.3. below, the same cognitivist premises can give rise to more optimistic views on equivalence and translatability.

Analysing nature terminology within the CL framework requires acknowledging that human categorisation is organised around prototypes. As Lakoff points out, 'most of our concepts concern categories not individuals' (1987: 370). A single word does not label a single concept but a category of concepts within which there are more or less typical members. Our lexicon is organised in the same way as our general cognition. There are basic-level categories, which are not indivisible, like semantic primitives, and have a complex structure. Thus 'dog' is more basic than 'dachshund'. Paradoxically then, what is structurally more complex is cognitively simpler, perceivable as gestalts – overall shapes. Categories do not objectively exist in the world but are most often 'a result of human imaginative capacity' (Lakoff 1987: 309). Lakoff (1987) devotes a lot of space to explaining why the objectivist view of categorisation is erroneous. Most simply, the idea that there is a single right taxonomy is contradicted by the very abundance of taxonomies. The classical, objectivist (Aristotelian) view stems from the folk conception of the world, according to which there exist natural kinds – categories of things objectively existing in the world. Lakoff admits that many folk natural kinds superficially have well-defined boundaries and seem to be unquestionably real – fish, goose, horse, etc. But the problem emerges when the objectivist criterion for being in the same category is considered – members of a given category must share common properties. There are certain necessary and exhaustive conditions they must meet to belong to one category, otherwise they are excluded. Evidence from biological taxonomy demonstrates, however, that the decision which properties are to count is not made according to a standard, 'independent of human interests and concerns, that can choose between them and provide a unique answer' (ibid.: 189). Due to three different views on what data should be taken into consideration to determine the division into species, represented by cladists,

phenetisists and evolutionists, this division can be different. If we accepted, following the objectivists, that there is only one correct categorisation scheme, and that this is the one advocated by cladists, such categories as zebras or fish would have to be deemed non-existent. There are species which phenetisists group under the common 'kind' zebra, or fish but cladists, using 'historically derived characteristics' rather than 'overall similarity' criteria, put into separate categories. Mayr's 'biological species' concept[4] tries to combine the two standpoints but it is not unanimously accepted, either. His findings confirm what in the field of cognitive psychology was discovered by Rosch, Kay, Kempton and others – that categories show prototypical effects. They have no homogeneous internal structure and clear-cut boundaries and they are defined relative to other groups. Certain folk categories regarded as objectively existing in the world correspond to scientific classifications, but some others do not correlate at all or they do only to some extent.

That categorisation is not uniform is easily instanced. What remains debatable is whether the world is objective in its organisation but humanity has no access to its objectively existing categories or whether some categories objectively exist in the world, while others are formed subjectively by people in different ways depending on their perspective. On the assumption that we have no access to objective categories, the diversity of taxonomies is explained as the outcome of our various attempts – not infrequently unsuccessful – to discover and name them. The world is well-structured irrespective of our efforts to make sense of this structure, which are reflected in all sorts of classifications and the resultant labels. Lakoff takes the second stand of those juxtaposed above. He opts for, what he calls, experientialism, underpinned by basic realism, which acknowledges, *inter alia*, 'the reality of a world existing independent of human beings' and 'constraints on our conceptual systems due to the nature of that reality' (1987: 266). This allows him to reject total relativism, at the same time preserving essentially relativist views. He seems to bridge relativism with objectivism successfully[5]. Although an admittedly attractive proposal, it does not appeal to everyone. Muszyński dismisses it as 'trying to join opposite river banks with a bridge constructed along one of them' (1996: 38, translation mine). In the present work, taking one of the two positions described above is not necessary. Interest here lies in the fact that people do categorise in different ways across cultures or social divisions, and that even 'a given person may hold

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[4] For more information see Chapter 2.4.
[5] See e.g. Grzegorczykowa 1996: 11-26.

one or more folk theories and one or more expert theories in areas like medicine or economics or physics. It is commonplace for such idealized cognitive models to be inconsistent with one another' (Lakoff 1987: 121). Such diversity poses enough down-to-earth problems in need to be solved by the translator.

Putting philosophical deliberations aside, attention will be paid here to the palpable reality of prototypical effects in categorisation. These have been confirmed in many studies, four of which are discussed in more detail below. Dougherty (1993: 160-185) emphasises that the basic level in a particular classification depends on the significance of a given life sphere to a specific group of people. In the spheres of little cultural significance the basic level is moved towards more general distinctions. More general categories become most relevant, while those more specific cease to be widely recognisable 'gestalts'. American city dwellers draw distinctions at the level of life forms ('bush' vs. 'tree') rather than at the level of genera ('pine' vs. 'fir'), let alone species ('ponderosa pine' vs. 'lodgepole pine'). Native American tribes, for whom folk botany is a matter of everyday interaction and, in fact, of survival, establish the basic level of classification lower in the hierarchy. For them it comes naturally to distinguish a vast number of particular species. Dougherty goes as far as to imagine human communities settled somewhere in Outer Space for which the basic level of botanical classifications could shift upwards even in relation to American townspeople. Potentially, the contrast bush/tree would become abstract enough for them not to be immediately perceivable. Instead, they would limit themselves to plant/animal differentiation only. All in all, the basic level of categorisation is a relative issue rather than stemming from the objective structure of the world around.

Likewise, Hunn (1993: 73-96), also analysing the folk botany of Native American tribes, concludes that only some life forms are natural entities, distinguishable by morphological resemblance. Most of them, however, are grouped under common names for reasons other than overall similarity. These are usually very practical and understood by outsiders only when questions such as: who, when, why and how? are answered. It happens that certain plants, morphologically similar and scientifically classified in the same taxonomic unit, belong to different categories in folk botany because, for instance, one is gathered by men in spring with the help of a hoe in order to be eaten raw, and the other is collected by both sexes in summer with bare hands and then baked in an earthen oven for three days. Moreover, folk taxonomies are full of gaps – a lot of organisms bear no names, being referred to as 'something similar to ...'. They form an artificial periphery, existing for a given human community, not in

nature. They are residual species without practical importance and thus without specific names. Scientific taxonomies are not complete either but they try to classify organisms within a hierarchical structure based on morphology and genetics rather than on the core/periphery opposition derived from a mixture of morphological observations and associated cultural practices (or lack of them).

American observations have found confirmation in Polish studies reported in: Szczekocka-Augustyn, Wereszczyńska, and Zagrodzka (1996) and Habrajska (1996). Szczekocka-Augustyn, Wereszczyńska, and Zagrodzka (1996) examine fuzzy categories. Having tested 500 students and 300 lexemes of the Polish language, they conclude that the boundaries of higher-rank categories arbitrarily created by human beings, such as those of artefacts (tools vs. devices vs. instruments vs. machines) are least clear-cut in comparison with the higher-rank categories of animals (mammals vs. birds vs. reptiles, etc.) or plants (trees vs. bushes vs. flowers). In some cases such categories even lack typical exemplars constituting their centre. Although statistically animals and plants tend to be grouped under the same categories more consistently, half of the people tested confuse reptiles and amphibians, and a lot of them liberally mix up fruits and vegetables. Habrajska describes a test in which testees drew a list of 310 lexemes denoting plants and were then asked to arrange them in categories. In effect, a large number of categories were created, for example, cultivated plants, pot plants, cereals, herbs, garden plants, field plants, edible plants, weeds, root plants, vegetables, flowers, fruit plants, etc. They were characterised by free profiling, incompleteness and inconsistent criteria of selection, so they often overlapped. These folk categories were compared with scientific ones, which have a hierarchical structure and whose sets are supposed to be exhaustive and mutually exclusive. Most importantly, the author postulates the introduction of separate terms for folk and scientific ways of compartmentalising the world, the first – categorisation, the second – classification. As shown later in the present work, mainly in Chapters Two and Three, this is an ideal situation, contradicted by reality, in which scientific categories become as subjective and fuzzy as the folk ones due to a multitude of scientific classifications in circulation and efforts to adopt them for non-professional uses.

Generally, both early cognitivist psychological experiments and later linguistic studies indicate that categories show prototypical effects and, following E. Rosch's nomenclature (reported in Kardela 1996: 23-24), are characterised by:

- background framing
  (category formation depends on the encyclopaedic knowledge, experience and views of a language user)
- fuzziness
  (there are no clear-cut boundaries of the meaning of words or terms, categories denoted by them are perceived as gestalts)
- gradability (even when the boundaries are well-demarcated there are better and worse category members bound by what Wittgenstein calls 'family resemblances', with higher or lower 'cue validity', to use Rosch's term)
- stretchability (a category can include elements of a completely different category)

In this work, these properties – valid for both folk and scientific categorisation – serve as a start-off point for a discussion on what the translator can do in order to avoid mistranslation of nature terminology. In other words, how s/he can detect cases of 'overfuzziness' or 'overstretching' in the original, and how to prevent such cases from permeating into the translation.

1.3. Translation within a theoretical framework

1.3.1. Cognitive accounts of translation:
Gutt, Hejwowski and Tabakowska

According to Hejwowski (2004a), within the cognitive framework three theories of translation have been developed: Gutt ([1991] 2000), Tabakowska (1993) and Hejwowski (2004a). They differ significantly. The newest of them is by Krzysztof Hejwowski, who, acknowledging a number of merits the other two have, identifies in them various drawbacks, which have inspired the elaboration of his own theory. Although Gutt's relevance-theoretic account of translation gives due weight to mental processes involved in translation, it aspires to be reductive. Neither Tabakowska nor Hejwowski believe one can explain such complicated processes as communication – and, consequently, translation – with the help of a one all-encompassing principle. Gutt defines translation as 'interlingual interpretive resemblance' (2000: 196), understood not as 'an exact duplication of thoughts in communication' but as 'enlarging mutual cognitive environments' (ibid.: 213). This can be achieved with 'the guidance provided by the search for optimal relevance, taking into account the specific contextual background of the audience s/he is working for'