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Навчальний посібник розкриває спрямованість сучасних лінгвокогнітивних теорій на відображення зв’язку мови з різними здібностями людини: сприйняттям, категоризацією, пам’яттю, мисленням, соціалізацією й спілкуванням.
Для магістрантів, аспірантів, викладачів і всіх, хто цікавиться проблемами когнітивної лінгвістики.

The manual reveals a link of modern cognitive linguistic theories to reflecting relations between language and a number of human faculties which include perception, categorization, memory, reasoning, socialization and communication.
The book is addressed to master students, postgraduates, university teachers and all those who are interested in the problems of cognitive linguistics.

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Вступ

Цей посібник призначений для магістрантів факультетів іноземних мов і має на меті ознайомити студентів з основними поняттями когнітивної лінгвістики – новітнього підходу, спрямованого на вивчення взаємодії мови й мислення.

Посібник складається з дев'яти розділів: кожен із них включає теоретичну частину; перелік проблем, які супроводжують розвиток певного лінгвокогнітивного підходу; питання для самоконтролю; список літератури для подальшого ознайомлення з темою.

У першому розділі запропоновано визначення когнітивної лінгвістики, надано періодизацію її розвитку у світі й в Україні, а також розглянуто географію її поширення. Другий розділ пропонує огляд сучасних когнітивних методів, які включають інтроспективний, корпусний, квантитативний, емпіричний і концептуальний.

Виклад матеріалу в кожному з наступних розділів розкриває спрямованість існуючих лінгвокогнітивних підходів на встановлення взаємодії мови з окремими здібностями людини: сприйняттям, категоризацією, пам'яттю, мисленням, соціалізацією й спілкуванням.

Перцептивно-орієнтовані лінгвокогнітивні моделі, розглянуті в третьому розділі, враховують різні аспекти контактування людини з навколишнім середовищем стосовно тіла як початкової точки відліку: відображення певних рис об'єкта у формі знака, втілене в іконічності; протиставлення фігури й фону як більш і менш помітних сутностей; відтворення внутрішнього стану суб'єктів через взаємодію Агоніста й Антагоніста як більш і менш помітної сил; зовнішнє зображення об'єктів через апеляцію до тілесних, перцептивних, просторових, силових і рухових образ-схем. Розглянуті в четвертому розділі лінгвокогнітивні моделі, засновані на категоризації, охоплюють класичний підхід, психологічні теорії прототипів і найкращого екземпляру, а також теорію побудови перспектив.

Лінгвокогнітивні моделі, які враховують роль пам'яті, представлені розглянутими в п'ятому розділі концептами, фреймами (схемами) й картиною світу. Уперше запропоновано диференціювати три підходи до вивчення вербалізації концептів – номінативний, перспективізаційний і синтетичний. Лінгвокогнітивні моделі, пов'язані з мисленням, розглянуто в шостому розділі: вони охоплюють концептуальну метонімію, концептуальну метафору й теорію концептуальної інтеграції. Особливу увагу приділено дискурсивним дослідженням концептуальної метафори і її зіставленню з метонімією. Суспільно-орієнтовані моделі, запропоновані когнітивною соціолінгвістикою й когнітивною етнолінгвістикою, проаналізовано в сьомому розділі.

Підпорядкованість моделей, пов'язаних із різними здібностями людини, дискурсивній діяльності розглянуто у восьмому розділі, який висвітлює теорії когнітивної і конструкційної граматик, когнітивної риторики й поетики, що набули в Україні значного поширення.

Foreword

The manual is meant for master students of departments of foreign languages whose major is English and aims at introducing the main notions of cognitive linguistics – a cutting edge approach to the study of relations between language and thinking.

The manual consists of nine parts: each of them includes a theoretical introduction; a list of problems pertaining to a particular cognitive linguistic approach; questions for self-control; a list of recommended literature for further reading.

The first part of the manual offers a definition of cognitive linguistics, distinguishes the periods of its development worldwide and in Ukraine as well as explores the geography of its dissemination. The second part gives an outline of modern cognitive methods of introspection, corpus- and usage-based, quantitative, empirical and conceptual.

The presentation of material in each of the following parts is focused on the connection between cognitive linguistic approaches and separate human faculties: perception, categorization, memory, thinking, socialization and communication.

Perception-based cognitive linguistic models, discussed in the third part, reflect different aspects of an individual's contacts with the environment relative to the body as the starting point: iconic reflection of an object's features in the form of a linguistic sign; figure / ground alignment distinguishing more and less salient entities; reconstruction of individuals' internal state through the opposition of Agonist and Anatagonist as more and less salient phenomena; external representation of objects by bodily, perceptual, spatial, force and kinetic image schemas.

The cognitive linguistic theories based on categorization are discussed in the fourth part. They include the classical approach, psychological prototype and exemplar models as well the vantage theory.

The models taking into account the role of memory are represented by concepts, schemata and worldview in the fifth part of the manual with a special attention to three approaches to the study of concepts: labelling, decompositional and compositional. The cognitive models based on thinking are explored in the sixth part which encompasses metonymy, conceptual metaphor and conceptual integration theory with an emphasis on discursal studies of conceptual metaphor and its comparison with metonymy. Socially-based models, developed by cognitive sociolinguistcs and cognitive ethnolinguistics, are analyzed in the seventh part.

The subordination of the models, based on different human faculties, to discursal activity is discussed in the eighth part which deals with Langacker's Cognitive Grammar, construction grammars, cognitive rhetoric and cognitive poetics gaining popularity in Ukraine.

PART 1

COGNITIVE LINGUISTICS BASIC TENETS

The cognitive approach to language encompasses a wide variety of theoretical proposals with a common denominator: the idea that language is an integral part of cognition and therefore it should be understood in the context of conceptualization and mental processing. In this view, languages reflect the interaction of cultural, psychological, communicative and functional aspects, i.e. it is not treated in isolation, e.g. as a „module", but both as based on structures and processes of general cognition and social cognition, and as affecting such structures and processes. Hence the most general definition treats cognitive linguistics as an approach to language that is based on our experience of the world and the way we perceive and conceptualize it (Ungerer and Schmid). However, this definition needs further elucidation with respect to the latest advances in the field.

1.1. Defining Cognitive Linguistics

It is natural to start the definition of cognitive linguistics with the elucidation of the term "cognitive". Unfortunately, scholars do not have very clear criteria as to what makes something cognitive at all since there is no generally accepted account in linguistics or wider cognitive science of what is entailed by calling something cognitive or conceptual. Moreover the commonplace definition of cognitive as 'involving knowledge' raises as many questions as it answers.

Firstly, some scholars claim that the meaning of the term *cognitive* has changed its meaning. Originally, it distinguished the rational from the emotional and impulsive aspect of mental life, now it is used to refer to the psychological processes involved in the acquisition, organization, and use of information, in fact, in all information processing activities of the ***brain***, ranging from the analysis of immediate stimuli to the organization of subjective experience (R. Tsur). In other words, "cognitive" covers such processes and phenomena as perception, feeling, emotion, memory, attention, problem-solving, language, thinking, and imagery, most of which are excluded from the earlier sense.

Secondly, the term *cognitive* is regarded as a study of human ***mind*** viewed as a complex system involved in the acquisition, storage, transformation, and transmission of information (S. Coulson, T. Matlock). It results in the definition of cognitive linguistics as a paradigm of cognitive commitment. The definition also links language with a number of cognitive faculties: perception, attention, categorization, conceptualization, affect, memory, reasoning and other ability which are still to be discovered.

The singled out abilities can be divided into general and specialized abilities. General abilities include processes of general cognition: perception, memory, and reasoning (B.M. Velichkovsky). Special abilities subsumed by the general include categorization, figure-ground-organization, construal, experiential basis of

concepts, background cognition (metaphor, blending, analogy), entrenchment (J. R. Taylor).

Perception is mainly represented by figure ground organization.

Memory serves as the background of cognition, i.e. what we say is actually only a very small part of what we mean – all sorts of things go in the back of our mind which enables us to understand what people are talking about.

The traditional accounts of cognition focus too much on the passive storage of information and too little on the importance of situated cognition while the emphasis on the interrelation between conceptualization, action and environment is necessary. **Reasoning** is embodied in the interaction of general abilities is represented by experiential basis of concepts, categorization and construal. In case of reasoning the non-linguistic operations are reflected by language means. The reasoning-based approach is represented by conceptual metaphor, metonymy and mental spaces which explain human thinking independent of language.

The **complex explanation** of cognitive activity argues that when we use a word (e.g. *table, go, mysticism*) extremely complex cognitive processes are involved which should be studied (Barsalou 2008). In this vein, a speaker's knowledge of a lexical item cannot be reduced to a single structure, i.e. a ptototype or the highest-level schema. The conventional meaning of a lexical item must be equated with the entire network, not with any single node.

The cognitive faculties underlie the processes of acquisition, storage, transformation, and transmission of information which prompts connecting the cognitive study of language to particular human faculties, i.e. those of perception with the central role of attention and categorization, memory, reasoning, socialization, and discourse activity.

Hence we can define cognitive linguistics in the following way:

Cognitive linguistics is a study of language in connection with different human facilities which include perception, categorization, memory, thinking with the list of abilities not being exhausted.

With this definition in mind we can classify the existing cognitive theories into those related to different human faculties: perception-based, categorization-based, memory-based, reasoning-based, socially-based and discourse-related.

Because cognitive linguistics sees language as embedded in the overall cognitive capacities of man, topics of special interest include:

- the structural characteristics of natural language categorization (such as prototypicality, systematic polysemy, cognitive models, mental imagery and metaphor);
- the functional principles of linguistic organization (such as iconicity and naturalness);
- the conceptual interface between syntax and semantics (as explored by cognitive grammar and construction grammar);
- the experiential and pragmatic background of language-in-use;
- the relationship between language and thought, including questions about relativism and conceptual universals.

Developing as a reaction to the generative grammar approach cognitive linguistics has a number of advantages in comparison with the latter and previous studies of language:

- instead of the traditional axioms that reduce language to a self-sufficient system, it proves that language is neither self-contained nor describable without essential reference to cognitive processing;
- overcomes the dichotomies of syntax and semantics, lexis and grammar, semantics and pragmatics, competence and performance, synchrony and diachrony, langue and parole;
- belongs to the functionalist tradition in linguistics;
- semantic structures are characterized relative to knowledge systems whose scope is essentially open-ended;
- it encompasses novel conceptions as well as fixed concepts;
- sensory, kinesthetic, and emotive experience;
- recognition of the immediate context (social, physical, and linguistic).

It is recommended to turn to cognitive theory only when one encounters some issue that one cannot handle in more traditional terms. A discussion becomes cognitive not when it resorts to a certain terminology, but when certain problems are addressed which cannot be properly addressed without appealing to some cognitive process or mechanism (R.Tsur 2008).

1.2. History of cognitive linguistics

The history of cognitive linguistic studies can be divided into four stages: preliminary, seminal, recognition, and dissemination.

The first – **preliminary** – stage started in the 1970s out of the work of a number of researchers who were interested in the relation of language and mind instead of explaining linguistic patterns by appeal to structural or internal properties specific to language. Rather than segregating syntax from the rest of language in a 'syntactic component' governed this line of research examined the relation of language structure to the extralinguistic world, i.e. cognitive principles and mechanisms not specific to language which included principles of human categorization; pragmatic and interactional principles; and functional principles in general, such as iconicity and economy. The most influential linguists were Wallace Chafe, Charles Fillmore, George Lakoff, Ronald Langacker, and Leonard Talmy. Each of them began developing their own approach to language description and linguistic theory, centered on a particular set of phenomena and concerns. One of the important assumptions shared by all of these scholars is that linguistic structures serve the function of expressing meanings and hence the relations between meaning and form are a prime subject of linguistic analysis. These views were in direct opposition to the ideas developed within Chomskyan linguistics, in which meaning was peripheral to the study of language. The central object of interest in language was syntax. The structures of language were in this view not driven by meaning, but instead were governed by principles essentially independent of meaning.

The second – **seminal** – stage of cognitive linguistic development started in late 1980s and is so called because at that time the main cognitive ideas were formulated. It is characterized by a number of works published by the so-called founding fathers of cognitive linguistics. Lakoff and Johnson became well-known for their work on metaphor and metonymy *("Metaphors we Live by"*) as well as due to their single-authored books: "*Women, Fire and Dangerous Things"* (1987) by G. Lakoff and "*Body in the Mind"* by M. Johnson. Langacker's ideas evolved into an explicit theory known first as Cognitive Grammar ("*Foundations of Cognitive Grammar",* Vol. 1, 1988). Talmy published a number of increasingly influential papers on linguistic imaging systems ("*How language structures space"*). At this time, Gilles Fauconnier developed a theory of Mental Spaces ("*Mental Spaces*") which was later transformed in collaboration with Mark Turner into a theory of Conceptual Blending. The next publication milestone was the collection "*Topics in Cognitive Linguistics*", ed. by Brygida Rudzka-Ostyn, published by Mouton in 1988. This substantial volume contains a number seminal papers by Langacker, Talmy, and others which made it widely influential.

The third – **recognition** – stage started in the 1990s with the spread of the seminal ideas throughout the world. In this vein, in 1989, the first conference on Cognitive Linguistics was organized in Duisburg, Germany, by Rene Dirven. At the meeting, it was decided to found a new organization, *The International Cognitive Linguistic Association*. The Duisburg conference was retroactively declared the first International Cognitive Linguistics Conference. The first issue of the journal *Cognitive Linguistics* appeared in 1990 under the imprint of Mouton de Gruyter, with Dirk Geeraerts as editor.

At the Duisburg conference, Rene Dirven proposed a new book series, Cognitive Linguistics Research, as another publication venue for the developing field. The first volume, a collection of articles by Ronald Langacker, brought together under the title *Concept, Image and Symbol*, came out in 1990. The following year, Volume 2 of Langacker's *Foundations of Cognitive Grammar* appeared. During the 1990s Cognitive Linguistics became widely recognized as an important field of specialization within Linguistics, spawning numerous conferences in addition to the biennial ICLC meetings. The work of Lakoff, Langacker, and Talmy formed the leading strands of the theory, but connections with related theories such as Construction Grammar were made by many cognitive linguists. The breadth of research could be seen in the journal *Cognitive Linguistics* which had become the official journal of the ICLA.

The International Cognitive Linguistics Association (ICLA) fosters and promotes research within the perspective of cognitive linguistics. This perspective subsumes a number of concerns and broadly compatible theoretical approaches that share a common basis:

- language is an integral part of cognition that reflects the interaction of cultural, psychological, communicative, and functional considerations;

- language can only be understood in the context of a realistic view of conceptualization and cognitive processing;

- any theoretical conception of language must be compatible with what is known about neurological organization and function.

Since then, the conferences have been held biennially, with the exception of 2009 when the conference was cancelled by the organizer.

Below you will find a list of the international conferences held by ICLA venues and main organizers:

First ICLC 1989, University of Duisburg, Duisburg, Germany (Rene Dirven)

Second ICLC 1991, University of California at Santa Cruz, Santa Cruz, U.S. (Gene Casad)

Third ICLC 1993, July 18-23, Katholieke Universiteit Leuven, Leuven, Belgium (Dirk Geeraerts)

Fourth ICLC 1995, University of New Mexico at Albuquerque, Albuquerque, U.S. (Sherman Wilcox)

Fifth ICLC 1997, Free University of Amsterdam, Amsterdam, Netherlands (Theo Jansen and Gisela Redeker)

Sixth ICLC 1999, Stockholm University, Stockholm, Sweden (Erling Wande)

Seventh ICLC 2001, University of California at Santa Barbara, Santa Barbara, U.S. (Ron Langacker)

Eighth ICLC 2003, July 20-25, 2003, University of La Rioja, Logroño, Spain (Francisco J. Ruiz De Mendoza)

Ninth ICLC 2005, Yonsei University, Seoul, South Korea (Conference Chair: Hyon-Sook Shin)

Tenth ICLC 2007, Jagiellonian University of Krakow, Poland (Elżbieta Tabakowska). It was the first "Jubilee Meeting", celebrating ICLA and Cognitive Linguistics organizational and publication milestones that occurred in 1987-1988

Eleventh ICLC 2011, Xi'an, China, July 11-17, 2011 (Dingfeng Shu, Thomas Li)

Twelfth ICLC 2013, Edmonton, Alberta, Canada, June 23-28, 2013. The overall theme of ICLC-13 is 'Cognitive Linguistics at 25', with three sub-themes:

- Looking Back: Taking stock of the past 25 years in cognitive linguistics. The year 2013 marked nearly 25 years since the 1989 Duisburg conference that solidified the cognitive linguistics approach, reified it in name, and established the journal, Cognitive Linguistics.
- Looking Forward: Considering the next generation of cognitive linguistics research.
- Looking Outward: Looking to understudied populations and applications, particularly in regard to endangered languages and signed languages.

The fourth – **dissemination** – stage started in the 2000s. It is characterized by two features: establishing strong connections between Cognitive Linguistics and other research areas of functional linguistics, linguistic description, psycholinguistics, pragmatics, and discourse studies can be seen, as well as emergence of regional and language-topical Cognitive Linguistics Associations. Because cognitive linguistics focuses on the relation of language to the human mind, including human cognitive and cultural models, it has natural

interdisciplinary links with Psychology (both Cognitive and Social) Anthropology (both Evolutionary and Cultural), Sociology, Philosophy (especially via the study of categorization), and indeed, any field in which scholars study conventionalized knowledge systems (conceptual systems) deployed in human interaction.

In the 2000s Spain, Finland, and Slavic-language CLA were formed, and then Poland, Russia and Germany became the sites of newly affiliated CLAs. These were followed by Korea, France, Japan, North America, the U.K., Sweden (which soon expanded to a Scandinavian association), as well as China and Belgium. Some of these associations existed prior to affiliation, while others were formed specifically as regional affiliates. A review journal, *The Annual Review of Cognitive Linguistics*, began its run in 2003, and other new journals followed suit.

This period sees a number of major publications which summarize the ideas of cognitive linguistics. Among them are *Cognitive Linguistics: Basic Readings* [ed. D. Geeraerts]. Mouton de Gruyter, 2006; *Cognitive Linguistics: Current Applications and Future Perspectives* [ed. G. Kristiansen, M. Achard, R. Dirven, F. J.R. de Mendoza Ibanez]. Mouton de Gruyter, 2006; *The Oxford Handbook of Cognitive Linguistics* [ed. D. Geeraerts, H. Cuyckens]. Oxford University Press, 2007; *Cognitive Linguistics in Action: From Theory to Application and Back* [ed. Elżbieta Tabakowska, Michał Choińsky, Łukasz Wiraszka]. Walter de Gruyter, 2010.

1.3. Geography of cognitive linguistics

The geography of the cognitive linguistics development results from its dissemination throughout the world due to the local cognitive linguistic organizations: *the Spanish Cognitive Linguistics Association* (AELCo/SCOLA), founded in 1997*; German Cognitive Linguistics Association* (Deutsche Gesellschaft für Kognitive Linguistik/), set up in 2004*; Association Française de Linguistique Cognitive*, initiated in 2005*; the Scandinavian Association for Language and Cognition* (SALC) formed in 2009; *the UK Cognitive Linguistics Association* (UK-CLA) inaugurated in 2005.

The UK Cognitive Linguistics Association has held conferences at the University of Sussex (2005); Cardiff University in 2007 ("New Directions in Cognitive Linguistics"); the University of Hertfordshire in 2010 ("Language, Mind and Social Reality"), at King's College, London (2012). Its regular publications include the journal *Language and Cognition* and *Selected Papers from UK-CLA Meetings* (on-line).

The development of cognitive linguistics in Ukraine is strongly influenced by the Polish and Russian associations which is quite natural due the neighbouring status of the countries. Therefore the activity of the cognitive linguists of these two states is discussed here in more detail.

The Polish Cognitive Linguistics Association (founded in October 2000 in Łodz) holds annual and topical conferences. The most notable of them was *Imagery in Language* (IMAIL), a symposium held in honor of Ronald W. Langacker, organized in Łodz, Poland, September 2003. The conference

immediately preceded the occasion of Professor Langacker receiving his Doctor Honoris Causa (honorary doctorate) from the University of Łodz on 1 October, 2003.

The major centre of cognitive linguistic studies in Poland is Łodz University which is the seat of the Polish Association of Cognitive Linguistics. This university has published a number of volumes in Cognitive Linguistics in the series *Łodz Studies in Language* (Peter Lang Publishing House):

Vol. 6. Cognitive Linguistics Today (2002);

Vol. 10. Imagery in Language. Festschrift in Honour of Professor Ronald W. Langacker (2004);

Vol. 14. Perspectives on Metonymy. Proceedings of the International conference (2007);

Vol. 18. Studies in Cognitive Corpus Linguistics (2009);

Vol. 25. Cognitive Processes in Language (2012);

Vol. 26. Texts and Minds. Papers in Cognitive Poetics and Rhetoric (2012).

Besides Łodz, cognitive linguistics successfully develops in Krakow under the auspices of Elżbieta Tabakowska and in Lublin which boasts three schools of cognitive linguistics: ethnolinguistic (J. Bartmiński), mainstream, developing the ideas of Western cognitive linguistics (H. Kardela), vantage theoretic (A. Głaz). The latest publications of *The Lublin Schools of Cognitive Linguistics* are *Further Insights into Semantics and Lexicography* (Wydawnictwo UMCS, 2007); *What's in a Text? Inquiries into the textual cornucopia* (Cambridge Scholars Publishing, 2012); A.Głaz. *Extended Vantage Theory in Linguistic Application: The Case of the English Articles* (Wydawnictwo UMCS, 2012).

Ukrainian cognitive linguists attend the conferences in Łodz, Krakow and Lublin as well as submit their contribution to the journals published there.

Cognitive research in Russia is represented by two strands: interdisciplinary, propagated by *The Interregional Association for Cognitive Studies*, and linguistic, supported by *The Russian Cognitive Linguists Association* founded in 2003 and based at Tambov State University.

The Interregional Association for Cognitive Studies holds biannual conferences which took place in Kazan (2004), St. Petersburg (2006), Moscow (2008), Tomsk (2010), Kaliningrad (2012) as well as publishes the book series *Cognitive Studies* («Когнитивные исследования»).

The Russian Cognitive Linguists Association is famous for its biannual congresses, the journal *Issues in Cognitive Linguistics* («Вопросы когнитивной лингвистики»), and a series of publications entitled *Cognitive Studies of Language*. Its titles are dedicated to the types of categories in language (2010), the interaction of cognitive and language structures (2011), theoretical aspects of linguistic representation (2012). The development of cognitive linguistics in Russia was initiated by Ye. S. Kubryakova who edited the publication of *Concise Dictionary of Cognitive Terms* («Краткий словарь когнитивных терминов») (Moscow 1996) and wrote a number of articles and books which later formed the volume "*Language and Knowledge*" (Е.С. Кубрякова. Язык и знание. М.: Языки славянской культуры, 2004).

Ukrainian scholars are frequent participants of the cognitive linguistics conferences in Tambov and Moscow while some of them attended the conferences of *The Interregional Association for Cognitive Studies*.

Ukrainian cognitive linguistics has passed three stages in its development: introductory, analytical and synthetic.

The first – **introductory** – stage (1990s) was characterized by the dissemination of Western cognitive ideas through different sources. The first one is the scholarships won by Ukrainian linguists which enabled their work with the leading American cognitive linguistics. The second source is the participation in cognitive conferences in post-Soviet countries and abroad as well as the organization of cognitive linguistics conferences in Ukraine. The most notable of them *Communicative/ cognitive aspects of English* attended by the leading scholars in the field from Russia and Ukraine took place at Cherkasy State University in 1999. The third source is the lectures by foreign scholars (Ye. S. Kubryakova, Margaret and Donald Freeman) and by Ukrainian linguists who returned after their studies in the USA (O. Vorobyova, S. Zhabotynska).

The second – **analytical** – stage (2000s) is characterized by the formation of varying cognitive linguistic strands aimed at the analysis of language and speech: conceptualistic semantics dealing with the study of concepts; the analysis of word meaning, word building, axiology; cognitive studies which include cognitive poetics, cognitive narratology, cognitive rhetoric.

The third – **synthetic** – stage (since 2010) is characterized by an increasing interaction of the representatives of different cognitive linguistics strands in Ukraine. This movement has resulted in the formation of *The Ukrainian Association of Cognitive Linguistics and Poetics* in 2012. Based at Kyiv Linguistic University, it is engaged in inviting foreign scholars, publishing monographs, with its members regularly attending conferences abroad.

The Association publishes a *Newsletter* and has its own website – <http://uaclip.at.ua/>.

Questions for self-control

1. What is the early definition of cognitive linguistics?
2. What is the current understanding of cognitive linguistics?
3. What are the stages of the cognitive linguistics development worldwide?
4. Who are the cognitive linguistics “fathers”?
5. What are the stages of the cognitive linguistics development in Ukraine?
6. How does the development of cognitive linguistics interact with its global dissemination?

Tasks

1. Compare the stages of the cognitive linguistics development in Ukraine and worldwide and try to explain the differences and similarities.

2. Compare the state of cognitive linguistics development in Russia and Ukraine and speak on the differences.

3. Visit the website of *The Ukrainian Association of Cognitive Linguistics and Poetics* and prepare a report on the organization's latest activities.

Further reading

Краткий словарь когнитивных терминов. – М.: Филологическ. ф-т МГУ, 1996.

PART 2

COGNITIVE LINGUISTICS METHODS

Surveying the publications in Cognitive Linguistics a novice can find the works of the founding fathers do not go beyond the traditional methodology of contemporary linguistics. Langacker, Talmy, and Fauconnier are regarded as highly traditional linguists who in terms of data gathering and data analysis practise **an introspective approach**, i.e. they employ traditional linguistic methods of examining native speakers' intuitions about the grammaticality and meaningfulness of linguistic expressions to uncover idealized linguistic knowledge of the speaker and hearer. In many cases the linguistic expressions examined are made up and the intuitions studied are those of the scholar actually constructing the work.

Scholars with the psychological background are skeptical about individual introspections employed by cognitive linguists and insist on the experimental studies (R.W.Gibbs). For them introspections are valuable sources for constructing hypotheses though they are cautious in accepting any individual analyst's linguistic judgement since there is considerable variation in linguists' introspections. The main drawbacks of introspection are seen in the connection with people's insights into the underlying cognitive processes at work when they perceive, learn, solve problems, use language, and have different emotional reactions to their own predicaments and to other people (Wilson). Moreover, it is stated that people often give explanations for their decisions which vary significantly from what is shown by more objective means. Those explanations vary from one day to the next in reporting their beliefs or knowledge, even for simple things like the names of all birds or furniture they know.

Therefore currently introspection gives way to more objective methods of analysis: usage- and corpus-based, quantitative, empirical.

2.1. Usage- and corpus-based analysis

The usage based analysis sees the linguistic structure as arising from and interacting with actual language use. Defining itself as a usage-based approach Cognitive Linguistics foregrounds the speaker in sharp contrast to the framework of generative grammar. Generally, usage-based linguistics is seen as the source of our knowledge about language functioning.

The usage-based linguistics studies actual usage as it appears in corpora in the form of spontaneous, non-elicited language data, or as it appears in an online and elicited form in experimental setting.

Usage-based approach reveals that item-specific knowledge of language exists alongside generalizations. Patterns are stored if they are sufficiently frequent, even when they are fully regular instances of other constructions and thus predictable. The usage-based model accounts for facts beyond argument structure. For example, in our everyday speech, it is often the case that one particular

formulation is much more conventional than another, even though both conform to the general grammatical patterns in a language. It's much more idiomatic to say *I like apples* than it would be to say *Apples please me*.

The usage-based approach comes up with the idea of ***entrenchment*,** or automatization, as the function of frequency of use, i.e. the more frequently something has been used, the more frequently it is processed. As something is used more frequently, and it's processed more frequently, it acquires a kind of automatic unit status, and you don't have to internally analyze it. The more frequently you do something, the less you have to pay attention to it, e.g. playing the musical instrument, foreign language pronunciation.

Usage-based linguistics involves not only a solid empirical method because it is aimed at the study of the actual, non-elicited language behaviour. Two schools which develop a methodology of empirical research based on the quantitative analysis of the corpus data are collostructional approach (S. Gries, A. Stefanowitsch) and that of quantitative lexicology at Leuven.

The corpus-based approach motivates the study of language in use such as talk in interaction or co-speech gesture.

The two approaches to corpus analysis are corpus illustrated research (Tummers, Heylen, Geeraerts 2005) and corpus analysis proper. In the vein of the ***corpus illustrated research*** corpora are used as a simple data gathering technique and not as an empirical testing ground for hypotheses, i.e. the corpus is treated as a repository of examples that are then analysed in a traditional way. Examples of a linguistic phenomenon are retrieved from the corpus and are then analyzed intuitively. In these studies when a theory predicts a phenomenon, the corpus presence of the phenomenon is taken as a confirmation of the theory. When a theory excludes a phenomenon, the corpus presence of a phenomenon is taken as a falsification of the theory.

The corpus research proper consists of the following steps:

- collecting appropriate materials;
- retrieving the relevant observations from the corpus;
- coding the observations for all the features which might be relevant in the analysis;
- performing the right quantitative analysis;
- turning to interpretation.

The corpora of observed language use that are being investigated are very often existing corpora like the British National Corpus, or readily available data like the ones one can get by googling, or corpora compiled with a specific purpose like a corpus of advertisements or newspaper headlines. Usage- and corpus-based linguistics needs quantification and statistical analysis.

2.2. Quantitative methods

Quantitative methods are applied to the quantified description of a word's distribution in a large collection of data regarded as a set of linguistic variables which are expected to reflect its semantics.

The advantage of the quantitative methods is that they introduce an external, objectifying perspective on the object of study.

The latest studies in cognitive linguistics offer a number of quantitative approaches. One of them is the collostructional method (A. Stefanowitch) which has grown out of a merger of two currents in modern linguistics: theoretical and methodological. It compares the frequency of a word in a given construction to its occurrence in other constructions and to the frequency of the construction in the whole corpus. The resulting measure – the collostructional strength – describes the association of a word in a construction and can serve as a starting point for further quantitative and qualitative investigations.

Other quantitative methods employ mathematical models which, for example, predict compositionality in V – NP constructions (S. Wullf); show the influence of particular factors in linguistic choice; reveal relations between established and novel semantic types which explain the productivity of certain word senses, i.e. the degree with which they allow semantic extensions.

Some scholars argue in favour of the inferential statistics for cognitive linguistics, in particular the t-test, ANOVA, and the chi-square test (R. Núñez).

2.3. Empirical methods

The empirical, or experimental, methods are borrowed from psychology where experimentation is an accepted way of settling theoretical disputes. Scholars suggest drawing cognitive linguists and psychologists closer together which means that cognitive linguists need to state the results of their research in such a way that they are empirically testable and formulate hypotheses that can be falsified. Besides corpus research, empirical methods include experimental designs, surveys, and the accompanying forms of quantitative data analysis.

It is not that empirical research replaces introspection, rather introspections are used to propose hypotheses, which then need to be tested by operationalising the questions and designing a study that will adequately answer those questions. In more strong terms it is claimed that linguistics is in need of an empirical revolution which will achieve an intertheoretical level of comparability (D. Geeraerts). Cognitive Linguistics creates favourable circumstances for an empirical approach due to its cognitive nature, the usage-based perspective and the importance it attaches to contextualizing linguistic structures.

D. Geeraerts singles out three features of empirical research:

- it is data-driven, i.e. the more data you can collect to study a particular phenomenon, the better conclusion you can make. They can come from different sources: from experimental research, from surveys etc;
- it involves quantitative methods which means a need of techniques to come to terms with the amount of material involved as well as statistical tests to determine whether your observations might be due to chance or not;

- empirical research requires formulation of hypotheses since the only conclusions one can draw are the ones that relate to the hypotheses one has formulated and tested.

Empirical research combines inductive and deductive reasoning: on the one hand, one works in a bottom-up way from data to hypotheses, but on the other, those hypotheses will also be derived top-down from the theoretical perspective one adopts thinking about the data.

Empirical research requires the operationalization of hypotheses, i.e. they must be formulated in such a way that can be put to test. Operationalization means turning a hypothesis into concrete data. For example, it is fine to conjecture that media exposure could have an influence on proper name fashions, but how can one measure the popularity of a name in the media?

The empirical approach uses a number of sophisticated methods. Eye-tracking shows that the speed and involuntary nature of eye movements make it an ideal source for the study of cognition as it happens. This approach concerns the study of word recognition, sentence processing, and the understanding of non-literal language, in particular fictive motion (Richardson et al).

It is important to distinguish the borderline between elicitation and observation. When a writing task takes the form of writing whole texts or narratives, the production task borders on corpus "elicitation": pooled together, the stories of the participants constitute a mini-corpus.

The main empirical method is that of associative experiment which allows to confirm the psychological relevance of the theoretical assumptions made by the investigator, i.e. that the associative network is not arbitrary but to a large extent motivated as a reflection of hierarchical conceptual structures in a speaker's consciousness. As a lexical sign is included into the associative network, after a word-stimulus is perceived, an appropriate fragment of the complex conceptual structure with its specific features and associated emotions and evaluations become fully or partially activated. Hence, responses evoked by a given stimulus can be seen as a reflection of corresponding conceptual structures. Besides the associative experiment allows us not only to reveal pertinent cognitive domains but also rank them according to their relative salience for the speakers.

The prominent Ukrainian scholars applying the associative experiment methodology are Andrei Levitsky (the concept CHERNOBYL) and Svitlana Martynek. Martynek's experiment concerned the binary oppositions in Slavic languages. The results were obtained from an associative experiment with the native speakers of Ukrainian and then compared with the Russian speakers. The reactions demonstrate the importance of the oppositional relations of the *right* and *left* for contemporary speakers. This opposition is related to the evaluative category: one of the opposition members is the bearer of a positive evaluation while the other member evokes negative attitudes. Therefore the parts of the binary opposition *right – left* are connected with the corresponding parts of other binary oppositions which include *native – alien*, *close – far*, *masculine – feminine*, *life – death*, within the main opposition of *positive – negative*. Due to this peculiarity, they are symbolically identified with each other and may replace each other,

creating a productive basis for metaphorical transfer. Moreover, the left part of this opposition is more active, both keeping the connection with corresponding members of other oppositions and productive figurative meanings.

Empirical methods are applied to the study of a number of linguistic phenomena. Spatial language is analyzed with the help of acceptability ratings, in which a subject provides an assessment of how well a sentence such as *The toothpaste is above the toothbrush* accurately describes a visual stimulus. Similarly, it can be measured how fast subjects can verify that a sentence does or does not correspond to a visual scene. A more interactive method is a placement task, in which subjects are asked to manipulate actual objects. Patterns in the placings allow inferences about the meanings of concepts such as above or in front of. Conversely, subjects can be confronted with a configuration of objects and be asked to describe the situation (Carlson and Hill).

Empirical methods test the idea that language understanding involves mental simulation. It is found that to understand a verb such as *throw* is to mentally simulate the physical movement and to imagine the consequences of that action. This theory makes a number of testable predictions. For instance, it predicts compatibility effects, in which a sentence such as *The man hammered the nail into the wall* primes the idea of downward movement and thus gives subjects an advantage for a subsequent task that involves such movement. Conversely, interference effects show that a mental simulation may make it more difficult to carry out a task that draws upon the same neural circuitry (Bergen).

Empirical infant studies provide unique insights into the cognitive organization of language in its formative stages. Methods for infant studies include the habituation paradigm, which can determine what aspects of a stimulus lead infants to perceive it as different from a previous stimulus. A lesser-known methodology is the intermodal preferential looking paradigm. This paradigm can be used to show that given two competing visual stimuli, infants will prefer to look at a visual stimulus that matches a simultaneous auditory stimulus. Given a stimulus such as *Find the shoe*, a picture of a shoe will receive more attention than a picture of a boat (Brandone et al).

Further insights concern the study of how the study of language can be bridged with its neighboring disciplines in the cognitive sciences, in particular computational and algorithmic approaches to cognition.

2.4. Conceptual analysis

The method of conceptual analysis, suggested by Ye. Kubryakova, deals with knowledge about the world and consists in the search for those common concepts activated by a sign. That is its main difference from the semantic analysis which explains the meaning of words. In Ukrainian cognitive linguistics the conceptual analysis concerns the study of meaning with the help of various cognitive structures discussed in subsequent chapters. The application of particular structures reveals a link between meaning and particular faculties of a speaking subject.

Questions for self-control

1. What is the characteristic feature of the works by founding fathers of cognitive linguistics?
2. Why is the usage-based approach important for the development of cognitive linguistics?
3. What are the similarities and differences between usage- and corpus-based approaches?
4. What are the two corpus-based trends?
5. What is the place of the quantitative methods in cognitive linguistics?
6. What is the essence of the method of conceptual analysis?

Further reading

Methods in Cognitive Linguistics [ed. M. González-Márquez, I. Mittelberg, S. Coulson**,** M. Spivey]. – Amsterdam: John Benjamins Company, 2007.

Quantitative Methods in Cognitive Semantics: Corpus-Driven Approaches [eds. D. Glynn, K. Fischer]. – B.: Walter de Gruyter, 2010.

PART 3

PERCEPTION-BASED COGNITIVE MODELS OF LANGUAGE

One of the original tenets of cognitive linguistics states that human thinking is grounded in experiential gestalts as well as in interaction between peoples' embodied minds and their various environments or cultures.

A number of cognitive models are based on the human order of perceiving the environment giving rise to our orientation around our body as centre. Human bodily movement, manipulation of objects, and perceptual interactions involve recurring patterns without which our experience would be chaotic and incomprehensible. Different perception-based patterns are studied by various approaches concerning embodiment, relating language structure and understanding to body as the centre of orientation; figure – ground alignment reflecting, the specificity of visual perception of objects of different salience; force-dynamics, capturing the physical interaction of objects; image schemas, generalizing perceptual relations.

3.1. Embodiment

The concept of embodiment refers to understanding the role of an agent's own body in its everyday, situated cognition since our action is constrained by the performance characteristics of our body, i.e. the physical properties of our hands and fingers and by the nature of the space in which we act. For example, the notion of something being heavy is based on our physical experience of holding something heavy, i.e. actual bodily experience.

Mark Johnson states that the centrality of human embodiment directly influences what and how things can be meaningful for us, the ways in which these meanings can be developed and articulated, the ways we are able to comprehend and reason about our experience, and the actions we take. In this vein, our reality is believed to be shaped by the patterns of our bodily movements, the contours of our spatial and temporal orientation, and the forms of our interaction with objects. Therefore in Putnam’s view, any adequate account of meaning and rationality must give a central place to embodied and imaginative structures of understanding by which we grasp our world.

Embodiment refers not only to neural events but also to the cognitive unconscious and to phenomenological experience. The notion of embodiment is opposed to the ‘disembodied’ approach to cognition overcoming the platonic dualism of mind and body. The concept of embodiment owes much to the pioneering work of Jean Piaget, who emphasized the role of sensorimotor activity in cognitive growth of a child. Since the 1950’s, much experimental work has refined the theory behind this approach to cognitive development. Considering the question of physical reasoning, i.e. handling physical objects in order to understand their properties, Gibbs mentions recent experiments and deplores the fact that scientists seldom acknowledge embodiment.

Bodily movements are closely associated with perception itself which involves the anticipation of action when adapting to environmental situations. Higher-order cognitive activities are treated as embodied. Memory, for instance, may be defined as embodied action, since memorizing and remembering often involve environmental information or, concerning language, vocalization. It is suggested that "computational processing on symbolic representations" is not restricted to the brain but rather it is "distributed as a 'cognitive web' across brains, bodies and worlds". It is claimed that personhood is ultimately constructed as a whole, "as an emergent property of interactions of the brain, body and world".

Embodied activity influences language use, be it speech perception, word processing or discourse comprehension. According to Gibbs, embodiment plays a part in many tasks that involve language, whether during effective communication or while accessing "off-line knowledge". Not surprisingly, an important role of gesture, supporting the idea that speech and gesture "constitute a tightly coupled cognitive system".

The embodiment hypothesis is also important for explaining the relationships between body, emotions and consciousness since not only bodily sensations are tightly associated with conscious experiences and emotions, but also they are connected with the world itself. Therefore, the view of consciousness as isolated and separated from the body is rejected by the author, who claims that emotions and consciousness "emerge from interactions of brain, body and world".

However, modern cognitive linguistics lacks a general model of embodiment which seems related to the scheme of human orientation.

3.2. Iconicity

The direct manifestation of the interaction between perception and linguistic sign is represented by iconicity.

Iconicity is the similarity or analogy between the form of a sign (linguistic or otherwise) and its meaning as opposed to arbitrariness.

Iconicity is believed to be a receptive cognitive principle that reflects metonymic links between parts, i.e. single event or property, and wholes (total of events or objects) revealing that extra-linguistic cognitive factors have a direct bearing on linguistic form, or that linguistic form is not so arbitrary as many have claimed.

What we now call "iconicity" was until recently restricted mainly to onomatopoeia, i.e. a word that imitates or suggests the source of the sound that it describes, e.g. *meow, roar, chirp* etc, and sound symbolism (phonosemantics) claiming that vocal sounds or phonemes carry meaning in and of themselves, e.g. *crash, bang*. However, generally form and meaning were regarded as independent of each other.

Dereck Bickerton has posited that iconic signs, both verbal and gestural, were crucial in the evolution of human language. Using a niche-construction view of human evolution, Bickerton has hypothesized that human ancestors used iconic signs as recruitment signals in the scavenging of dead megafauna. This process

"would have created new words and deployed old words in new contexts, further weakening the uncoupling of words from situations, from current occurrence – even from fitness," and thus allowing for the creation of symbolic language.

Initially Ch. Peirce distinguishes three subclasses of icons:

- image, i.e. a prototype of an icon, resembling its referents by virtue of sensory characteristics, e.g. *cuckoo*;
- metaphor, representing something else, e.g. *lion* represents *a brave man*;
- diagrams, i.e. systematic arrangements of signs that do not necessarily resemble their referents but whose mutual relations reflect the relations between their referents. The two aspects in a diagram are: isomorphism, i.e. one to one correspondence, and motivation, i.e. when diagrams exhibit the same relationship among their parts as their referents do among their parts, e.g. the word "schema" in cognitive linguistics.

Iconicity at the phonetic level is reflected in onomatopoeia, which is however arbitrary if we compare the representation of animals' calls in different languages.

Proximity/distance iconicity is represented by idiomatic expressions reflect the speaker's viewpoint, i.e. what is interesting for him is mentioned first, e.g. *here and there, now and then, sooner or later*.

Morphological iconicity is reflected by a number of phenomena mainly implying quantity:

- formation of the plural, i.e. the more form the more meaning, e.g. the plural *dogs* is more complex than the singular *dog;*
- the zero for the present but an overt form for the past, cf. *I work* vs *I work-ed*;
- marked form for oblique moods in comparison with the present, cf. *I would read a book with pleasure – I read books with pleasure*;
- degrees of comparison: the comparative is more marked than the positive degree and often the superlative is more marked than the comparative, e.g. *long – longer – the longest*;
- relation between positive and negative since negation requires a special morpheme, e.g. *happy – un-happy*.

Iconicity on the syntactic level manifests itself in distance and sequential order, especially word order.

Elements that occur closely together and form a unity in experience tend to be related to each other while what is separated will be seen as unrelated conceptually:

- natural order of events is indicated by word-order iconicity, e.g. *She married and gave birth to a child; He came, saw, won*; or an advert slogan *Eye it, try it, but it*;
- distance between expressions corresponds to the conceptual distance between the ideas they represent. Therefore the difference between the

following two statements consists in the implication of additional conditions in the second one: *We can do it quickly and well* and *We can do it quickly and we can do it well*. Moreover, in the position within adjective sequences as in *a large purple satin coverlet* conceptual closeness between the linen (*coverlet*) and the material that it is made of (*satin*) determines the primacy of the material adjective; colour is next in the intrinsic nature of artifacts, and size is the least intrinsic feature and stands at the greatest distance from the noun;

- prepositional objects show a greater physical distance than indirect objects, cf. *He gave a book to the teacher* and *He gave the teacher a book*;
- opposition between direct and indirect perceptions is demonstrated by the use of the Objective Infinitive Complex and a subordinate clause, cf. *I hear him sing (ing) and I hear that he sings/ is singing*;
- scope of activity is exemplified by the following two sentences with the first one implying that the whole wall is painted, cf. *He smeared the wall with paint* and *He smeared paint on the wall*;
- the principle of quantity relates to the pairing of form and meaning: a more complex form usually carries a greater amount of meaning, and form is motivated by functional factors such as politeness, demands of informativeness, and rhetoric, among others, e.g. the wording of *No smoking* in a public place with that of *Customers are kindly requested to refrain from smoking, if they* can in the dining room of a chic restaurant.

Recently, for instance, Haspelmath has argued against iconicity, claiming that most iconic phenomena can be explained by frequency biases: since simpler meanings tend to be more frequent in the language use they tend to lose phonological material.

3.3. Figure and ground

The figure / ground alignment mainly concerns visual or auditory perception when we focus on something which is the figure and then there is the background.

Figure / ground alignment, consisting in the perception of an overall shape, comes about by dividing the perceptual field into a more prominent part, the figure, and a less salient part called the ground.

This opposition is crucial for perception and for linguistic structure. In the phrase *the book on the table* the book is the figure, the table is the ground while in *the table under the book* the book is the figure, the table is the ground. In a similar way, Talmy claims that the main clause has the function of the figure and the subordinate clause that of the ground, e.g. *If Sydney is brash and bold, and Melbourne is cool and classy, then Canberra, at least in the Australian public imagination, is dull and devoid of soul.*

Another well-known example of figure / ground opposition is the active/passive constructions, cf. *Avalanche kills climbers in Nepal* (headline) and

At least nine people are killed and several are missing in Nepal after an avalanche hits climbers (lead).

The figure / ground alignment underlies the architecture of Langacker's Cognitive Grammar based on imagery, characterized by a number of features:

- profile and base;
- salience;
- scale and scope of predication;
- level of specificity;
- perspective.

The profile and base distinction rests on the figure / ground relations.

A profile is what a word usually designates, while base is the larger structure which provides for the understanding of a word. In Langacker's terms, a lexical item usually profiles a substructure of a larger structure which is called "base". For example, the noun *uncle* implies a background network of kinship relations and foregrounds one particular node in it.

In Langacker's view a profile is a structure elevated to a special level of prominence within the base, namely what the expression designates, i.e. a profile is a conceptual referent. It is prominent in the sense that the expression serves to single out and focus attention on it. The base (or domain) for the *hypotenuse* is the conception of *right triangle*; for *tip*, the base is the conception of *an elongated object*; *arm* is the domain for elbow, *April* to *year*, *eye* for *pupil* and *iris*. For *strawberry* the base is the domain of *plants,* in this case a strawberry plant with roots, leaves, and fruit, and the noun strawberry profiles the fruit.

A relationship like *the strawberry on the plate* consists of the link (or relation) between two things as participants, i.e. *strawberry* and *plate*.

In Langacker's Cognitive Grammar the profile and base opposition serves as the basis for the formation of semantic structures called predications which are characterized relative to "cognitive domains", i.e. any sort of conceptualization: a perceptual experience, a concept, a conceptual complex, an elaborate knowledge system, etc. Since certain concepts presuppose others for their characterization Langacker posits hierarchies of conceptual complexity, where structures at a given level arise through cognitive operations performed on the structures at lower levels. The cognitive domains required by linguistic predications can occur at any level in such hierarchies.

Langacker posits a number of basic domains, i.e. cognitively irreducible representational spaces or fields which occupy the lowest level in conceptual hierarchies. These basic domains include experiences of time, two or three-dimensional space, senses, color space, pitch scale, a range of possible temperature sensations, emotive domains. Therefore certain linguistic predications are characterised solely in relation to one or more basic domains, e.g. time for *before*, color space for *red*, or time and the pitch scale for *beep*. However, more recent Vantage theoretic research of color terms shows that Langacker's basic domains are not elementary.

In Langacker's view, most predications require more than one domain for their full description which he calls complex matrix, illustrating it by the example

of *knife*. One domain for its characterization is a shape specification, another is the canonical role of a knife in the process of cutting; additional properties are its inclusion in a typical place setting with other pieces of silverware; specifications of size, weight, and material; information about the manufacture of knives; the existence of knife-throwing acts in circuses. These specifications differ in their degree of centrality, i.e. the likelihood of their activation on the given occasion of the expression's use.

The notion similar to figure is that of **salience** which can be relative or enhanced.

The enhanced salience of explicitly mentioned elements can be illustrated by the semantic contrast between pairs of expressions like the following: *father* vs. *male parent*; *pork* vs *pig meat*; *oak* vs. *oak tree, triangle* vs. *three-sided polygon, sink* vs *passively descend through a medium under the force of gravity*; *grandchildren – children's children*. The paired expressions contrast semantically because the second one in each case explicitly mentions certain semantic components and thereby renders them more prominent than they would otherwise be. In this case, *pork* symbolizes the notion directly, so its compositional path consists of the single semantic structure. However, the meaning of *pig meat* incorporates not only the composite structure PORK, but also the individually symbolized components PIG and MEAT, together with the relationship that each of them bears.

The relative salience is attributed to figure/ground organization and elevates one of its participants to the status of figure in the expressions like *the lamp is above the portrait* and *the portrait is below the lamp*. Thought denoting the same spatial configuration they are distinct in the way they provide the ground. This asymmetry is not strictly dependent on the content of the predication, and is consequently observable even for expressions designating symmetrical relationships, e.g. *resemble*. Langacker maintains that *X resembles Y* and *Y resembles X* are semantically distinct: the former characterizes X with reference to Y, and the latter describes Y with reference to X. Similarly, *X is above Y* and *Y is below X* describe the same conceived situation, but they differ in how they construe this situation. In the former Y functions as a point of reference – a kind of landmark – for locating X, whereas the latter reverses these roles. Relational predications normally manifest an asymmetry in the portrayal of the relational participants.

Relative salience also underlies the subject / object opposition. It is obvious in the sentence *David read a new book* and it is implied in the sentences *David is reading* and *The best way to learn is to read*.

In Langacker's view the asymmetry is apparent in cases like *go, hit, enter, approach* where one participant moves in relation to another but its characterization must be abstract enough to accommodate the full range of relational expressions.

The relative salience of substructures in reflected in the sentence *Bill sent a walrus to Joyce* preposition *to* designates the path followed by the walrus, making this aspect of conceptualization more prominent than it would otherwise be, i.e.

unlike *Bill sent Joyce a walrus* where the juxtaposition of two unmarked nominals (*Joyce and a walrus*) after the verb symbolizes a possessive relationship between the first nominal and the second. In other words, this sentence lends added prominence to the configuration that results when the walrus completes its trajectory.

The next important feature of Langacker's theory based on figure / ground opposition is that of **scope**, i.e. the extent of profile's coverage in the base.

Scope denotes how much of the scene is to be included in the description and which elements are to be excluded.

The immediate scope means that the denoted objects must be structurally connected. In this respect, essential to the characterization of terms like *head, arm,* and *leg* is the position of the profiled entity relative to the body as a whole whose conception thus functions as their domain and immediate scope of predication. Moreover, each of these designated entities functions in turn as immediate scope of predication for other body-part terms defined on a smaller scale, e.g. *hand, elbow,* and *forearm* in the case of *arm*. *Hand* then furnishes the immediate scope of predication for *palm*, *thumb*, and *finger*, or on still smaller scale, and *finger* for *knuckle*, *fingertip*, and *fingernail*. The hierarchical organization has structural consequences. The sentences below are more felicitious when the speaker designates the immediate scope of predication for the object, cf. *A finger has 3 knuckles and 1 nail* and **An arm has 14 knuckles and 5 nails*.

The same concerns the possibilities of compounding. We can say *eyelash*, *eyelid*. However, it is hardly possible to say **facelash, *headlid*.

The scope of predication plays a specific structural role in the ***nested locative*** construction in which each locative expression confines the subject to a specific "search domain", which then constitutes the scope of predication for the locative that follows, e.g. *The quilt is upstairs in the bedroom in the closet on the top shelf behind the boxes.*

In the cited sentence the locative *upstairs* confines the quilt to an upper storey, the bedroom is construed relative to this restricted region – only an upstairs bedroom need be considered. The next search domain imposed by the second locative function is designated by the predication *in the closet*. Formally, these relationships are handled by positioning a correspondence between the search domain of each locative and the scope of predication of its successor.

Some scholars equate the notion of scope with Fillmore's idea of frame. The scene of a commercial transaction comprises participants and relations. The participants include a buyer, a seller, goods, a price, the quality of the goods or the extent of the sales. The two main relations are transfer of goods and of money. Of all this rich conceptual content, the construal operation never allows all elements within its scope. The absolute maximum is to denote all the participants, but only one direction in the transfer: *I paid her 200 dollars for the ring* or else *She sold me the ring for 200 dollars*.

The degree of specificity, or granularity, allows to describe a certain thing at different levels of schematicity, e.g. *animal – reptile – snake – rattlesnake*; *do – act – move – run – lope*; *thing – object – vehicle – truck – pick-up truck – battered*

old pick-up truck; the young physicist – the physicist – the scientist; *an original book – a book – a publication; animal – reptile – snake – rattlesnake – sidewinder*.

The highly schematic English verbs *be, have, do, make* allow to describe a situation without paying attention to all the details.

Each of the following sentences can be regarded as an elaboration of its specifications confining their possible values to a narrower range:

The player is tall.

That defensive player is over 6'tall.

That linebacker is about 6'5'' tall.

That middle linebacker is precisely 6'5'' tall.

Perspective subsumes a number of more specific factors:

- assumed vantage point;
- orientation;
- perspective;
- how objectively an entity is construed.

Vantage point is the position from which one looks at the situation. This can be the sentential subject as the figure selected for the scene, as illustrated above for each of the four different participants. The vantage point can also be either of the participants in the speech situation, i.e. the speaker's or the hearer's position as in the use of *come*: here the speaker can take either his own perspective or that of the hearer as in the contrast between *Shall I come to your place?* or *Will you come to my place*? In the former the coming is seen from the hearer's perspective, in the latter from the speaker's.

Orientation and vantage point are also well known from ambiguity of sentence *Brian is sitting to the left of Sally*.

Perspective can involve the choice of a direction of the motion in real motion events or in fictive motion events. Fictive motion is found in scenes such as *The roof slopes steeply upward* and *The roof slopes steeply downward*, where the former suggests motion away from, and the latter towards the speaker. After selecting a perspective, the speaker assembles the various elements chosen from the scene into larger composite wholes, linguistically expressed as phrases, clauses, sentences, or text.

Perspective can involve the choice between ***an objective and a subjective construal***. An objective construal presents an explicit temporal or spatial setting of the scene relative to speech time or to the speaker's position. Using the adverb *before now* the speaker defines the time reference point objectively as the time of the speech act (now); and by saying *She was sitting across the table from me* the speaker puts himself or herself objectively on the stage as the spatial reference point. The subjective construal means that the speaker leaves out the speech time (*She was sitting here*) or the speaker's position (*She was sitting across the table*) such as these vantage points are implied, explicitly or objectively put on stage. A subjective construal as *She was sitting across the table* is precisely subjective because it implies an off-stage, speaker-dependent reference point.

The figure / ground alignment is further specified by more specific terms of **trajector** – which does not necessarily identify a moving entity – and **landmark**.

Trajector is the primary focal participant within the profiled relationship, conceived as being located, described, or evaluated. A landmark is a secondary focal participant, which is less salient than the trajector. This opposition describes the pairs of expression that contrast semantically, for example *before* and *after*. Each designates a relationship of temporal precedence between two events, strange to say, *before* and *after* profile the same relationship. Their semantic contrast resides in whether the later event is invoked as a landmark for purposes of situating the earlier one, or conversely.

Langacker sees the trajector/landmark configuration as applicable to those conceptual relationships that are linguistically expressed as phrases, clauses, and complex sentences. In the structure of a simple sentence or clause, the trajector is the subject, and the landmark is the direct object or the oblique complement. Furthermore each trajector/landmark relation in a finite clause – or rather the situation or scene described in it – is simultaneously grounded in time and reality by means of the tense system or in irreality by the modality system. The speech act itself functions as the figure and the whole speech situation as ground.

The opposition of trajector and landmark explains the meaning of the preposition *of* which according to Langacker profiles a relationship between two entities: one of them (the trajector) constitutes an inherent and restricted subpart of the other (landmark), e.g. *the bottom of the jar, a kernel of corn etc*. A single kernel represents an intrinsic but quite limited portion of the mass referred to by *corn*.

Unlike the preposition *of* which profiles an inherent-and-restricted-subpart relationship, the unit *on* designates a relationship of contact and support involving two distinct objects, and *to* a relationship between separate (or separable) objects that belong together in an integrated assembly. Thus with the preposition *of* the referent of the noun *bottom* is more felicitous than that of *label* or *lid*, since a jar's bottom is intrinsic to it, the label and lid being more extrinsic. Conversely, *label* and *lid* go better with *on* provided that they are actually attached to the jar; bottom is problematic because a jar and its bottom are not distinct objects. *Of* is also used to code the relationship between an event overall and one of its participants where the nominalized verbs like *consumption*, *destruction* represent the conceptual reification of an event conception. In such cases the trajector is a reified process and the landmark is a participant in that process.

3.4. Construal

Construal is our capacity to conceive and portray the same situation in alternate ways.

The many aspects of construal fall in a number of general categories discussed in the previous paragraph: specificity, prominence, perspective, dynamicity.

R. Langacker claims that languages systematically provide means for different kinds of construal providing for the cognitive operation of transforming a conceptual scene into a linguistic description of it.

Construal has to do with the fact that speakers actually structure experience and language rather than represent the situation as it actually is: we refer to a situation how we perceive it and how we structure it but not as it is. In its turn construal is related to the notion of imagery defined as the capacity to structure or construe the content of a domain in alternate ways (2006: 33).

The most obvious aspect of construal is vantage point evident from the contrast of the phrases *Come up into the attic* and *Go up into the attic* which presuppose different speaker locations: in the attic and on the ground. Closely related to the vantage point is the extent to which the existing entity is subjectively or objectively construed. These terms indicate whether an entity functions as a subject or object of conception.

3.5. Force dynamics

The force dynamic theory, proposed by Leonard Talmy, sees the primary distinction in language marking a role difference between the two entities exerting forces. One force-exerting entity is focal, or salient, is called **Agonist**. The second force entity produces an effect on the first one, overcoming it or not, is called **Antagonist**.

The above mentioned forces have an intrinsic tendency either towards motion or rest, or more generally towards action or towards inaction.

According to Talmy, the Agonist and Antagonist enter four most basic force-dynamic patterns involving steady-state opposition.

The first two patterns reflect the Agonist's intrinsic tendency towards rest opposed by a stronger or weaker Antagonist.

1) An Agonist with an intrinsic tendency toward rest that is being opposed by a stronger Antagonist which overcomes its resistance and forces it to move. This is the classical "causative" pattern, e.g. *The ball kept rolling because of the wind blowing on it*.

2) An Agonist's stability prevails despite the Antagonist's force against it, i.e. the Agonist has an intrinsic tendency to rest which is stronger than the force opposing, called a "despite" pattern, e.g. *The shed kept standing despite the gale wind blowing against it.*

The other two patterns reflect the Agonist's tendency towards action with a strong or weak Antagonist.

3) The Agonist's intrinsic tendency is toward motion because it is stronger than that of the external source opposing it, e.g. *The ball kept rolling despite the stiff grass*.

4) The Agonist has a tendency toward motion with the Antagonist stronger and blocking it rather than hindering it. Therefore the Agonist is kept in place, e.g. *The dog kept lying on the incline because of the ridge there*.

The result of the force opposition for the Agonist in 1 and 3 is action, in 2 and 4 is rest.

The first and the fourth cases depict a strong Antagonist and the resultant state of the Agonist is contrary to his intrinsic tendency.

The force-dynamic analysis captures the basic concepts of 'despite' and its opposite 'because of' as well as the concepts of hindering and blocking.

Force-dynamic relations have a grammatical representation. With the Agonist appearing as subject, the role of a stronger Antagonist can be expressed by the conjunction *because* or the prepositional expression *because of*. The role of a weaker Antagonist can be expressed by the conjunction *although* or the preposition *despite*.

The application of force dynamic procedures is possible at two levels:

1) distinctions between more and less powerful forces which enables us to draw certain conclusion about the influence of named objects;

2) identify the relation between more and less powerful actors.

The link of different referents denoted by nouns to particular forces is revealed by context.

The application of force-dynamic patterns to the study of advert slogans reveals that they are based on two main patterns:

- an Agonist with a tendency to motion is opposed by an Antagonist with a tendency to rest;

- an Agonist with a tendency to rest is opposed to the Antagonist with a tendency to motion.

The first pattern is exemplified by the advert slogan *Big oil should support small business* (Chevron). In this case *big oil* names an Agonist with a tendency to motion indicated by the adjective *big* while the Antagonist *small business* has a tendency to rest indicated by the adjective *small*.

The second pattern is embodied in the advert motto *Tame your sore throat with Cepacol* where the Agonist denoted by the word combination *sore throat* displays a tendency to rest indicated by the adjective *sore* while the Antagonist equated with the pill *Cepacol* is treated as an Antagonist with a tendency to motion. A similar pattern is used in the advert *Let's heat our cities with cleaner energy* where the Antagonist with a tendency to motion is represented by the adjective *cleaner* in the comparative degree.

The force-dynamic patterns proposed by Talmy can be supplemented with the *billiard-ball model* suggested by Langacker. It represents an archetypal model of the world in which participants interact transferring energy to one another (Langacker 1991). In this framework, the initial element of the chain, the head, imparts energy to the second element in the chain, the second element transmits energy to the third, and so on until the energy is all spent. The last element of the chain, the tail, absorbs the energy.

In addition to force relations, Talmy distinguishes three types of motion: factive, fictive, and metaphorical.

Factive motion concerns real motion as in *The boy ran from the tree to the fence*.

Fictive motion consists in depicting a situation where there is no actual motion, but it is conceived as if it involved real motion, as in *The road ran from the river to the valley*. This kind of motion is possible since our perceptual

mechanisms give us the false impression that there is motion: we move our eyes from one point to another and interpret the static scene as if it were dynamic.

Metaphorical motion portrays a non-physical entity as if it were a moving object, as exemplified by *The smell came into the room*.

3.6. Image schemas

Image schemas are recurring dynamic patterns of our perceptual interactions and motor programs that give coherence and structure to our experience (M. Johnson).

Image schemas emerge through our sensorimotor activity as we manipulate objects, orient ourselves spatially and temporally, and direct our perceptual focus for various purposes.

Being patterns of our perceptual interactions, bodily actions, manipulations of objects image schemas are not the same as real images referred to as "rich" images: they are more absract than ordinary images. Image schemas are treated as abstract structures of images (Johnson 1987), or generalization of images. As is generally acknowledged, the term image schema first appeared in Talmy (1983), Johnson (1987), and Lakoff (1987), and was used as a notion to account for the embodied origins of human language and cognition.

Originally, image schemas were characterized as directly meaningful, pre-conceptual, highly schematic, continuous and analogous, and internally structured (B. Hampe). In the past two decades, image schemas have proven to be a crucial and fundamental concept in cognitive linguistics. They are useful in explanations of various linguistic and non-linguistic issues, in the areas of lexical semantics and inference structure in particular.

For example, the COMPULSION image schema derives from our experience of being moved by external forces, such as wind, water, physical objects, and other people. When a crowd starts pushing, we are moved along a path we may not have chosen, by a force we seem unable to resist. In the case of compulsion, the force comes from somewhere, moves along a path and has a direction. The COMPULSION schema is elaborated in a large number of abstract domains of experience, e.g. psychological states, legal relationships, formal systems, which is reflected in the corresponding words (Johnson).

Image schemas motivate important aspects of how we think, reason, and imagine. The same image schema can be instantiated in many different kinds of concepts because the internal structure of a single schema can be metaphorically understood.

Image schemas are more abstract than ordinary visual mental images and consist of spatial patterns that underlie the spatial relations found in actual concrete images. Mental images are also temporary representations while image schemas are permanent properties of embodied experience. Though image schemas are derived from perceptual and motor processes they are not themselves sensorimotor processes but their formal representations. The peculiarity of image schemas

consists in their gestalt structure, i.e. several objects are represented simultaneously.

Image schemas exist across all perceptual modalities, i.e. they are at once visual, auditory, kinesthetic, and tactile. The schemas cover a wide range of experiental structures that are pervasive in experience, have internal structure, and elaborated in different ways.

The existence of image schemas is supported by developmental research (R.W.Gibbs, H.L.Colston) which shows that from early age, infants are sensitive to the difference between something starting to move on its own and something being pushed or otherwise made to move.

Studies in cognitive linguistics suggest that there are over two dozen image schemas and several transformations appear regularly in people's everyday thinking, reasoning and imagination (M.Johnson, G.Lakoff).

The task of cognitive semantics is to give a unified account of image schema theory which is possible if we resort to the more general human faculty of orientation treated as the first phase of intellectual behavior which leads to the selection of a plan of action (Færch, Kasper 1983).

In the course of orientation, in their visual or mental field and relative to their BODIES individuals single out and connect referents of varying salience.

The orientational treatment of image schemas reveals that their inner components differ in the degree of salience which acquires specific interpretations under certain situational conditions. The concept of a salient, or primary, referent goes back to Talmy's notion of figure and Gruber's idea of pivot of the situation identified as the Theme (Smith 2003).

Within the orientational framework four groups of images schemas can be distinguished: bodily, perceptual, spatial, and dynamic.

The **bodily schemas** FRONT – BACK, TOP – DOWN, LEFT – RIGHT, CENTER – PERIPHERY structure the space around an individual's organism. Their first components are more prominent due to the visual accessibility of the objects located in those positions, i.e. front, above, on the right-hand side or in the center. They are very important in organizing different kinds of magazine, newspaper, internet discourses.

The **perceptual schemas** MASS – COLLECTION – COUNT – OBJECT reflect a visual transformation of a single homogeneous mass into a cluster of objects and the reverse procedure brought about by an individual's motion forward and backward relative to a group of objects (Johnson 1987). The prominence of separate referents in this chain increases with a conceptualizer's movement from MASS to OBJECT and falls during the motion in the opposite direction. They underlie the choice of different nouns denoting objects and indicate a distance between a viewer and an object:

- countables in the singular are related to the OBJECT image schema establishing a close perspective (*a cow*);

- countables in the plural are related to the COUNT schema and closer perspective (*cows*);

- collective nouns are based on the COLLECTION schema and distant perspective (*a herd*);

- uncountables are related to the MASS schema implying a remote perspective denoted by names of substances (*sugar*) and abstract nouns (*beauty*), e.g. *Computer chaos for American airlines* (bbc.com/news/ 17.04.2013).

The **spatial schemas** SURFACE – OBJECT – CONTAINER – CONTENTS (FULL/EMPTY), encoding a person's movement into a three-dimensional space or out, impart different salience to the referents, positioned outside and inside physical, e.g. *Ricin in letter to US senator* (bbc.com/news/ 17.04.2013), or metaphorical spaces, e.g. *BBC in Korea 'student' reporter row* (bbc.com/news/ 14.04.2013).

The salience of **dynamic components** results from their place in the kinetic and force hierarchies. The kinetic schemas – PATH, VERTICALITY and CYCLE – position a trajector, i.e. a moving object, relative to a number of coordinates: the starting point, a goal, a route from source to goal, actual trajectory of motion, the position and direction of a trajector at a given time, the actual final location of the trajector (Lakoff, Johnson 1999), e.g. *Syrians flee coastal massacre* (bbc.com/news/ 14.05.2013)

The two transforms of the PATH schema – CYCLE and VERTICALITY – impart varying prominence to the starting and final points. Their merger results into their equal salience within the CYCLE schema representing a return to the original state (Johnson 1987). Its importance is reflected in the state of the final point, denoted in the following example by the noun *prison*, e.g. *Ukraine ex-PM 'can return to prison'* (bbc.com/news/ 22.02.2013).

The transformation of beginning and end into UP and DOWN coordinates distinguishes PATH from VERTICALITY where the salience of UP is substantiated by a number of findings, for example constructions with *up* are verified more quickly than those with *below* (Shepard, Cooper), e.g. *Dow tops 15, 000 as world shares gain* (bbc.com/news/ 7.03.2013)

The differing salience of the source and target of force is captured by eight schemas: COUNTERFORCE, COMPULSION, ATTRACTION, BLOCKAGE, RESTRAINT REMOVAL, DIVERSION, ENABLEMENT (Johnson 1987) opposing DISABLEMENT.

The source and target are balanced in COUNTERFORCE when two equally strong force centers collide face-to-face, with the result that neither can go anywhere (Johnson 1987). The equilibrium of the COUNTERFORCE constituents gives grounds to treat this schema as a prototype with others as its variants differing in the prominence of source and target.

Salient sources with differently directed vectors are represented by ENABLEMENT, ATTRACTION and COMPULSION. The source of ENABLEMENT defined as a sense of power (Johnson 1987) seems to be inside a moving object; in COMPULSION it is behind the target while in ATTRACTION it is ahead. The source of RESTRAINT REMOVAL is salient due to its supporting role which contributes to the resumption of motion or activity; in BLOCKAGE and DIVERSION the sources are prominent since they hamper the targets' movement

while DISABLEMENT represents a non-salient referent devoid of any energy and incapable of any activity.

Synthesis of image schemas with force dynamics and contributes to simultaneous reconstruction of an agent's position from two different perspectives: from external and internal. In this vein, the COUNTERFORCE image schema focuses on the head-on meeting of forces which cannot continue their movement imparting a similar tendency towards motion to Agonist and Antagonist. As a result, it is impossible to predict the outcome of the collision, e.g. *Afghan and Pakistan troops clash* (bbc.com/news/ 6.05.2013).

COMPULSION represents the Agonist and the Antagonist with one of them characterized by a tendency towards motion, e.g. *US urges Taiwan Phillipine calm* (bbc.com/news/ 16.05.2013).

BLOCKAGE represented as a force vector encountering a barrier and then taking any number of possible directions (Johnson 1987) represents an Agonist with a tendency towards rest as a result of the Antagonist's domination, e.g. *US jails al-Shabab recruiters* (bbc.com/news/ 15.05.2013).

The force-dynamic theory reveals a link of the image schemas of ENABLEMENT and DISABLEMENT to the Agonist or Antagonist with a tendency to motion, e.g. *Ireland votes in general elections* (bbc.com/news/ 27.04.2013), or rest, e.g. *Three UK soldiers die in Afghanistan* (bbc.com/news/ 1.05.2013).

Image schemas are also helpful in the analysis of the structure of news stories since they can explain the meaning of the predicates and the nouns naming participants which is exemplified by the following text:

> *Cholesterol-busting pill could save heart victims*
> (1) *A CHOLESTEROL-busting pill* […] *is being developed by scientists.* (2) *They believe the powerful new drug, anacetrapib, could save the lives of thousands of heart disease patients a year.*
> (3) *The daily pill has been shown to halve the levels of bad cholesterol in the blood* […].
> (4) *Researchers claim the drug is so effective that it could reduce deaths from heart disease.*
> (5) *A Harvard University study found that the drug* […] *dropped cholesterol levels to unprecedented lows* (DM 18.11.2010).

In the cited extract the predicates *is being developed* (1), *could save* (2) and *could reduce* (4) depict pills as a means of doing away with the disease which torments thousands of patients (*the lives of thousands of heart disease patients*). The effect of relief is rendered by appeal to the VERTICALITY schema underlying the presentation of the fall of cholesterol levels (*to halve the levels dropped*), which results in the reduction of deaths (*could reduce deaths from heart disease*) and reduction of the cholesterol levels (*dropped*) to a minimum (*to unprecedented lows*).

Image schemas do not simply exist as single entities but are usually linked together to form very natural relationships through different image schema

transformations: path-focus to end-point focus; multiplex to mass; following the trajectory; superimposition (Johnson).

Path-focus to end-point focus means following, in imagination, the path of a moving object, and then focus on the point where it comes to rest, or where it will come to rest.

Multiplex to mass means that moving away in your mind from the group until the cluster of individuals start to become a single homogeneous mass. Then you move back down to a point where the mass turns once again into a cluster.

Following the trajectory is interpreted like this. As we perceive a continuously moving object, we can mentally trace the path it has traversed or the trajectory it is about to traverse.

Superimposition. Imagine a large sphere and a small cube. Increase the size of the cube until the sphere can fit inside it. Now reduce the size of the cube and put it within the sphere. Each image schema transformation reflects important aspects of our visual, auditory, or kinesthetic bodily experience.

The **additional schemas** singled out by a number of scholars can be explained with the help of the existing ones. It is exemplified by the image schema MOMENTUM (R.W.Gibbs). We experience visual momentum when we see heavy objects in motion continue to move even when encountering other entities. We experience kinesthetic momentum both when we observe a heavy moving thing and an object that some other heavy moving object runs into. This image schema is claimed as the basis for many abstract metaphorical concepts expressed in the following utterances: *I was bowled over that idea; we have too much momentum to withdraw from the election race. I got carried away by what I was doing. We better quit arguing before it picks up to much momentum and we can't stop; once he gets rolling, you'll never be able to stop him talking.* However, the cited examples reveal connection of momentum with motion formalised by the PATH image schema which represents movement beyond the final point of a trajectory, or in terms of force dynamics representing an Agonist with a tendency towards motion.

Image schemas differ from the notion of schemata traditionally used to represent abstract conceptual and propositional event structures. Empirical evidence from cognitive and developmental psychology is consistent with the idea that sensorimotor representations of imagery are essential to many forms of higher-order perception and thought (R.W.Gibbs, J. M. Mandler).

Although image schemas do not underlie all aspects of meaning and cognition they are a crucial dimension of meaning that needs further exploration.

3.7. Orientation and reference-point phenomenon

Besides image schemas the human ability for orientation, when relative to their bodies and in their visual fields individuals single out objects of different prominence, underlies the reference point phenomenon. It captures our ability to invoke the conception of one entity for purposes of establishing mental contact with another, i.e. to single it out for individual conscious awareness (Langacker).

The reference point phenomenon can be exemplified by PART conceived in relation to WHOLE which functions as a natural reference point. A part term like *elbow, tail, roof*, evokes as its base the conception of a whole with respects to which it profiles an entity whose nature and subpart status depend on its function within the overall configuration.

According to Langacker the reference point ability rests on the following primitives:

- conceptualizer;
- reference point;
- target, i.e. the entity that the conceptualizer uses the reference point to establish mental contact with;
- dominion, i.e. a conceptual region (or the set of entities) to which a particular reference point affords direct access.

To function as a reference point, a notion must be activated and established as an entity currently capable of serving in that capacity, e.g. WHOLE. However, when this potential is exploited – when a reference point is actually used it is the target, e.g. PART that now becomes prominent.

The target may itself be invoked as a reference point for reaching another target, e.g. the letters of the alphabet, the months of a year, the days of a week etc. In this way the reference point phenomenon is inherently dynamic. According to Langacker our reference point ability remains below the threshold of explicit attention, we simply use it without realizing that we are doing anything of the kind: reciting the alphabet, when each letter calls the next one to mind.

The reference-point phenomenon has been applied to the study of possessives which have in common the relation when one entity, i.e. possessor, is invoked as a reference point for purposes of establishing mental contact with another (the possessed), e.g. *the cat's fleas*. It is natural that the cat, and not the fleas, should be construed as the reference point and coded as possessors. The advantage of this analysis is proved by the construction like *Lincoln's assassination* devoid of possession. Participants are natural reference points since they are concrete and easily pointed to, while events are by nature more abstract and so readily localized.

The possessive morpheme invokes as its base nothing more than the reference point relationship. In this case (*Sally's dog*) the possessive morpheme's landmark is put in correspondence with the entity profiled by the possessor nominal (*Sally*) and its trajector with the profile of the head noun (*dog*).

The application of a more general – orientational – model to the explanation of the reference point phenomenon reveals that the meaning and structure of synonymous ***relative constructions*** rests on three orientational primes: conceptualiser, limits of his conceptual field, referents of different *conceptual* and *contextual* salience. Their conceptual salience results from its size, mental distance from the conceptualizer, and other parameters of perceptual origin. Their contextual prominence is brought about by a referent's role in a particular situation. For example, perceptually and conceptually, a building is more salient than its roof though contextually the latter can be more important, e.g. *Browing*

took 36 passengers and prayed he would get off the roof (Newsweek 1.05.2000, 45).

Due to their orientational meaning relative constructions underscore contextual significance of referents with different conceptual prominence.

In genitive phrases the nominal head indicates a conceptually salient referent, e.g. *Singh's government*.

In prepositional phrases the foregrounding of the names of the conceptually less prominent referents underscores their contextual significance, e.g. *the government under Singh*.

In genitive constructions the pronominal head diminishes the contextual significance of the conceptually prominent referent, e.g. *his fragile coalition government*.

Attributive phrases represent two contextually important referents with the first one being conceptually more prominent, cf. *Russian intelligensia vs*. *Russia's intelligensia*. The contextual salience of the conceptually less prominent referent can be emphasized by the nomination of additional features, e.g. *a prominent Russian film director*.

The interaction of conceptual and contextual salience determines a number of textual functions performed by relational constructions: locational, distributional, zooming-in and zooming-out.

In the locational function prepositional constructions relate referents of similar conceptual salience to different activities, cf. *the leader of the gang* vs. *the former GOP majority leader*.

In the zooming-in function the successive use of attributive constructions and definite descriptions guides the reader to a particular referent, e.g. *the embassy roof → the roof*.

The zooming-out function indicates the backward movement involving the expansion of the perception field and inclusion of new objects, e.g. *the roof → the roof of an embassy*.

If we agree that orientation as well as the reference-point relations determine a number of different phenomena which include possessives, metonymy etc it is important to explain their differences. The problem also concerns the absence of the relation of the reference-point phenomenon to the basic tenets of Cognitive Grammar which gives grounds to treat it together with construal within a more general human ability for orientation.

Questions for self-control

1. What is the core of the perception-based cognitive models of language?
2. What types of iconicity do you know?
3. How is the figure/ground opposition employed in Cognitive Grammar?
4. What is the difference between figure/ground and trajector/landmark oppositions?
5. How can you explain the opposition between Agonist and Antagonist?
6. What is the difference force-dynamic and image-schematic approaches?

7. How is the idea of orientation applied to the classification of image schemas and to the explanation of the reference-point phenomenon?

Further reading

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PART 4

CATEGORIZATION-BASED COGNITIVE MODELS OF LANGUAGE

Categorization is the human ability to divide reality into discrete units and sets of units through seeing similarity in difference. It is seen as the primary means of coding experience that helps reduce the demands of limited memory storage, perceptual and reasoning processes by creating similar representations for related objects, relations, or events (Gershkoff-Stowe and Rakison 2005).

Category is a number of objects that are considered equivalent.

The peculiarity of language is that the things that linguists study – words, morphemes, syntactic structures, etc. – not only constitute categories in themselves, they also stand for categories. For example, besides being categorized as an English word, a noun, a syllable with "a consonant – vowel – consonant structure" the phonetic form [kæt] also designates a real world object representing the category CAT.

Cognitive linguistics offers a number of interpretations of categorization which results in different approaches to understanding language. Those views of categorization are reflected in different approaches:

- classical;
- psychological;
- vantage theoretic.

4.1. Classical perspective on categorization

The classical theory of categorization, going back to Greek antiquity, dominated psychology, philosophy and linguistics throughout much of the twentieth century.

According to the classical view categories possess four features:

- a conjunction of necessary and sufficient features, necessary for the definition of a category. Jointly the two features are sufficient: any entity which exhibits each of the defining features is a member of a category. For example, the necessary features of the category MAN are [TWO-FOOTED] and [ANIMAL];

- features are binary, i.e. a thing must either be or not be, it must either possess a feature or not possess it, it must either belong to a category or not belong to it;

- categories have clear boundaries, i.e. once established a category divides the universe into sets of entities – those that are members of the category, and those that are not;

- all members of a category have equal status, i.e. any entity which exhibits all the defining features of a category is a full member of that category; any entity that does not exhibit all the defining features is not a member.

The feature approach was adopted by many linguists dealing with phonology, syntax, and semantics. They claimed that the categories of syntax and

semantics could be represented by features which were binary, primitive, universal, and innate.

This approach to semantics is usually illustrated with a well-known example of the word *bachelor* in the sense "man who has never married". Katz and Postal represent the meaning of this word in terms of four semantic features, namely [HUMAN], [MALE], [ADULT], [NEVER MARRIED]. Those four features together are believed to define the essence of bachelorhood: any entity in the world which exhibits these four features can be correctly designated by the word "bachelor". If any of the four features is missing, or has the wrong value – if an entity is [FEMALE] or [-ADULT] – then the entity does not qualify for bachelorhood.

Making economical and insightful statements about the structure of a language the feature approach has two advantages:

- it reveals the proportional relations which exist within the lexicon, e.g. the relationship between *bachelor* and *spinster* parallels the way the other pairs of words are related, i.e. *boy* and *girl*, *husband* and *wife*, *uncle* and *aunt* etc. These word pairs contrast in that one member of the pair has the feature [MALE], while the other is [FEMALE];

- features make it possible to define natural classes of items, e.g. [HUMAN] defines the class of human nouns, while [-ANIMATE] defines the class of inanimate nouns. Classes like this are involved in the restriction on the way words combine together into phrases, for example, we cannot say **Sincerity admires John* since *admire* requires a noun [+HUMAN] as its subject. Similarly, we cannot speak of **infant bachelor*, since *infant* with the feature [-ADULT], contradicts bachelor, which has the feature [+ADULT].

4.2. Cognitive views on categorization

Contrary to the expectations of the classical theory, some categories are not structured in terms of shared features which was revealed by Ludwig Wittgenstein who addressed the question of defining the German word *Spiel* "game". He notes that the various members of the category GAME do not share a set of common properties on whose basis games can be clearly distinguished from non-games, i.e. there are no attributes common to all the members and to them alone. In ball games there is always winning and losing, or competition between players but when a child throws his ball at the wall and catches it again, this feature disappears. As a result of this examination Wittgenstein characterizes these similarities as **family resemblances** on the analogy with the various resemblances between members of a family: build, colour of eyes, gait, temperament which overlap and criss-cross in the same way. Similarly, games form a family.

Witgenstein's insight that the classical theory fails to predict the referential range of at least some words in everyday use received empirical confirmation in a series of experiments reported by Labov (1973) who studied the linguistic categorization of household items such as cups, mugs, bowls, and vases. When line drawings of receptacles (= containers for putting something in) of different shapes

were shown to subjects, asked to name the depicted objects, contrary to the classical theory there was no clear dividing line between CUP and BOWL, rather one category merged gradually into the other.

The experiment revealed that entities are categorized on the basis of their attributes which are **not binary** constructs of the classical approach. In categorizing an entity, it is not a question of whether the entity possesses this attribute or not. Even the presence or absence of a handle is not a matter of either or. We can imagine different kinds of handles. The attributes of cups, bowls, and vases include the characteristic shape, size, and material of the receptacle. Moreover, Labov showed that one and the same receptacle might be categorized differently according to its function, i.e. if it is used for drinking coffee or for eating mashed potatoes. Finally, no one single attribute is essential for distinguishing one category from the other. Presence of a handle, or function in the drinking coffee, merely raises the probability that an entity will be categorized as a cup.

These observations have given rise to the cognitive theories of categorization: exemplar and prototypical.

The **exemplar theory** claims that categories are not discrete entities but rather are structured about the core represented by the best exemplar of a category (Brooks, Nosofsky).

In exemplar theory categories are clouds of remembered tokens of that category. According to the exemplar model all perceived tokens are categorized and stored creating categories that directly represent the encountered variation. In the application of the exemplar theory to language, categories emerge from the repetition of units in the continuous stream of linguistic data to which we are exposed. For any given category those units which are most frequently experienced become strengthened. The strength of the exemplar increases as frequency increases. Hence those units which tend to repeat themselves in speech get stored more effectively and units of different sizes emerge as a result of redundant storage: both relatively smaller and bigger units repeat themselves with smaller units occurring within larger ones (D.R.Sanford).

In the **prototype theory** (Berlin, Kay, Rosch, Lakoff, Dirven and Taylor) prototypically defined categories are structure around a single central member which may or may not be an instantiation of a category. The prototype can be understood as a schematic representation of the conceptual core of a category.

The prototypes serve as reference points for the categorization of non-clear instances. Prototypes contain a richness of sometimes culturally bound detail. Thus, the prototypical cup in Western societies has a handle, it is made of porcelain, it comes with a saucer; it has a certain overall shape and a typical size; cups are used for drinking hot tea or coffee, and we usually buy them in sets of six. None of these attributes is essential for membership in the category. A plastic container, with no handle and without a saucer, is still a cup, albeit not a typical one.

The most extensive and systematic empirical exploration of prototypes has been pursued by the psychologist, Eleanor Rosch. She investigated the structure of

natural categories by asking subjects to what extent certain kinds of entity could be regarded as good exemplars of a category. She dealt with the categories FURNITURE, FRUIT, VEHICLE, WEAPON, VEGETABLE, TOOL, BIRD, SPORT, TOY, AND CLOTHING. She asked 200 American students to judge to what extent each of the sixty household items could be regarded as a good example of the category FURNITURE. Subjects responded using a 7-point scale ranging from (=very good example) to 7 (=very bad example, or not an example at all). According to her investigation the best exemplars of furniture are represented by *chair* and *sofa* followed by *couch*, *table* and *easy chair*. The worst exemplars are represented by *telephone* (the least), *fan, ashtray, vase, closet*.

In other experiments being asked to name the best members of the categories WEAPON, BIRD, SPORT subjects named in the first place GUN, ROBIN, FOOTBALL. Such categories are learnt on the basis of exemplars.

Prototype effects are not restricted to categories denoted by nouns, for example, graded membership is characteristic of the categories denoted by the verbs *look, kill, speak, walk*. Prototype categories have a flexibility, unknown to Aristotelian categories, in being able to accommodate new, hitherto unfamiliar data. With only Aristotelian categories at our disposal, new data would often demand, for their categorization, the creation of new categories, or a definition of existing categories.

Prototypicality is intimately bound up with different **categorization levels** since a given entity may be categorized in many alternative ways, e.g. *chair, piece of furniture, artefact, entity*. They represent four levels of categorization, each more inclusive than the preceding one. The category CHAIR is included in the superordinate category FURNITURE which in turn is included in the even higher category ARTEFACT. On the other hand, KITCHEN CHAIR is a subordinate member of the category CHAIR. The very lowest level of categorization is represented not so much by categories, but rather individual instances which gives grounds to include here separate individuals named by proper names.

Scholars think that it is at the basic level of categorization that people conceptualize things through perception and function. A person cannot visualize a piece of furniture but has no difficulty, though, in describing the motor movements we perform when interacting with a chair, or to name the parts of which a chair is composed. It comes as no surprise that it is the basic level at which people normally talk about reality. Answering a foreigner's question *What is it?* you would prefer the word *chair* to *a piece of furniture* or *artefact*. It has been found that the most useful and most used name for an item to be the basic-level name. Adults almost invariably named pictures of the subordinate items at the basic level, although they knew the correct superordinate and subordinate names for the objects.

Basic level categories have the following features in common: attributes, motor movewments, shape similarity, identifiability of averaged shapes.

Motor movements. When performing the action of sitting down on a chair a sequence of body and muscle movements are typically made that are inseparable from the nature of the attributes of chairs – legs, seats, back etc. There are few

motor programs we carry out to items of furniture in general and several specific motor programs carried out in regard to sitting down on chairs, but we sit on kitchen and living-room chairs using essentially the same motor programs.

Similarity in shapes, or in visual aspects of the objects. Shapes of objects of a class are similar.

Objects may first be seen or recognized as members of their basic category and that only with the aid of additional processing can they be identified as members of their superordinate or subordinate category (Rosch 1978:35).

Not all possible levels of categorization are equally good. The most basic level of categorization will be the most inclusive (abstract) at which the categories can mirror the structure of attributes perceived in the world. The term *level of abstraction* refers to a particular level of inclusiveness.

Superordinate terms may be missing from the vocabulary of a language, or in case of need learned terms can be coined, e.g. *sibling* as superordinate to *brother* and *sister*. Superordinate categories have a lower category resemblance than do basic-level categories, because they have fewer common attributes. The category resemblance within the superordinate can even be negative due to the high ratio of distinctive to common features. Very few attributes are listed for the superordinate categories while a significantly greater number listed for the basic-level objects and not significantly more for the subordinate level.

Basic-level terms are generally short and structurally simple.

Terms **below the basic level** are frequently compounds consisting of the basic level terms plus modifier, e.g. *kitchen table*. Terms above the basic level are sometimes deviant in some way, e.g. *furniture* is uncountable in English.

As a rule, the idea of different categorization levels is applied to the analysis of. synonyms.

It may also be useful in the cross-linguistic studies of the choice of nominative units occurring in headlines published in different languages. The headlines on the BBC English site choose basic category names while their equivalents on the Ukrainian page prefer proper names referring to the subordinate categorization level, cf.: *Model tells court of 'dirty stone' gift – Наомі Кемпбелл у суді про "криваві алмази"* (5.08.2010); *Thais to hand over 'arms dealer' – "Збройного барона" Бута видадуть США* (20.08.2010); *Key posts for N Korea leader's son – Син Кім Чен Іра став генералом* (28.09.2010); names of films, cf.: *"Білу стрічку" назвали найкращим в Каннах – Austrian film takes Cannes honour* (25.05.2009).

The categorization level approach seems fruitful in explaining the use of the English articles: indefinite, zero, and definite. They can be treated as signals of categorization levels at which mental representations of objects are to be construed at:

- the indefinite article indicates the basic level objects viewed as perceptual and functional gestalts;
- the zero article refers to the superordinate level, representing a high degree of generality;
- the definite article signals the subordinate categorization level, reflecting

individual instances of categories.

The categorizing functions of the articles interact with particular conceptualization patterns embodied in the structure of sentences.

The indefinite article, indicating basic level categorization, is embedded into the patterns linking referents to the individual activity of separate entities:

- persons, e.g. *He hoped to win a strong rightist majority*;
- actions, e.g. *The touch gave him a feeling of joy*;
- locations, e.g. *A very dark shadow is resting on his house* etc.

Interpretative patterns underlie nomination of new landmarks, e.g. *But there was another long drama coming to an end*, imply changes in canonical conceptualizations, e.g. *Tony Blair inhabits a dangerous world* etc. In similar patterns, the zero article indicates superordinate level categorization, implying non-canonical conceptualization, e.g. *Some people lose sleep before exams* etc.

The definite article, indicating the subordinate level categorization, is entrenched in topological and relational conceptualization patterns:

- bodily topology rests on the TOP – DOWN, BACK – FRONT, CENTRE – PERIPHERY, LEFT – RIGHT coordinates, e.g. *the extreme left*;
- CONTAINERS of different size, e.g. *Fate of the world* etc.

Relative definite phrases locate referents in the following structures:

- successions, e.g. *the first round*;
- dyads, consisting of two referents, e.g. *to destroy the other*;
- triads, comprizing three coordinates, e.g. *the easiest thing*;
- tetrads, encompassing four referents, *e.g. left the north and returned home to the south* etc.

In common conceptualization patterns, the indefinite and definite articles, representing referents at basic and subordinate categorization levels, portray referents from external and internal situation perspectives, cf. *A most extraordinary thing happened* and *The most awful thing has happened*.

The problem with the existing categorization theories is that they fail to trace movement from the prototypes or examplars to other category constituents. The solution to this problem is offered by the Vantage Theory.

3.4. Vantage theoretic view of categorization

Vantage Theory, formulated by the American anthropologist and linguist Robert MacLaury, postulates that categories are formed on the analogy with the spatiotemporal orientation when a moving individual establishes his location relative to stationary landmarks. In comparison with other approaches the advantage of this theory consists in dynamic representation of categorization.

Vantage Theory was initially applied to the explanation of **colour.**

The first, and the most fundamental, tenet of VT is the treatment of human orientation in space-time, underlying category construction, in terms of immobility and mobility respectively,

Secondly, the singled out opposition of stasis and dynamics gives rise to two main coordinates of category construction: inherently fixed and inherently mobile.

Thirdly, in their turn, the two coordinates underlie the reciprocally balanced emphases on similarity or difference of the incoming stimuli relative to the focus: the category's range expands as long as the stimuli are deemed similar to the focus and the range becomes limited once the stimuli start being viewed as different from the focus. Similarity and difference of the incoming stimuli are conceived at two levels. On level one, categorization is juxtaposed with the inherently mobile attention to similarity, then on level 2 the fixed similarity allows for the new stimuli to be added. That new information on level 2 is attention to difference at the expense of attention to similarity.

Finally, arrangements of fixed and mobile coordinates, or points of view, underlying similarity and difference, produce two vantages: dominant and recessive. The dominant vantage starts with a focus and a stronger attention to similarity which endows it with a wider range. Then the role of similarity weakens making way for difference and the vantage is endowed with a margin. The recessive vantage arises through a reversal of coordinates.

To sum up, in standard VT category construction rests on a hierarchy of the following constituents: space / time → immobility / mobility → fixed / mobile coordinates → similarity / difference → dominant / recessive vantage.

The simplest example of the interaction of the dominant and recessive vantages with the elemental image is the formation of the category of RED.

In this case the three coordinates are the following:

- pure red (R);
- dominant vantage, based on similarity (S);
- recessive vantage, or difference (D).

Category construction takes place at two levels.

At the first level R is treated as ground, i.e. a less prominent coordinate, and S is regarded as figure, i.e. a more conspicuous coordinate. S determines the shades of colour other than the pure point of R, i.e. encompasses a certain range of colour.

At the second level, D stops the range from extending indefinitely, i.e. marks the boundaries of the category.

Levels	Fixated Coordinates	Mobile Coordinates	Entailments
1	R	S	focus, range
2	S	D	breadth, margin

According to MacLaury (2002) the vantage construction demonstrated here underlies aspects of actual behaviour and cognition presented in the right-hand column under the heading of entailments.

The outlined mechanism of category construction is applied to the explanation of a number of linguistic phenomena: the semantics of colour terms (MacLaury 1995, 1997); lexical semantics (Taylor, MacLaury, Głaz); number in English (Allan); the English articles (Głaz); song lyrics (Głaz); language learning (Pishwa); metaphorization (MacLaury); points of view in reporting events (Głaz).

The method of VT application to linguistic needs depends on the elements used and the scope of their employment. Accordingly, linguistic applications can be divided into narrow and broad.

Narrow approaches make use of one or two elements of the original theory:

- the idea of immibolity and mobility as the basis of category formation;
- multi-level vantage construction of a category;
- viewing modes;
- complex approaches resting on the interaction of the elemental image with degrees of similarity and difference.

Mobility and immobility

The notion of mobility / immobility as method of category construction is applied to the interpretation of time and place as basic domains (Langacker). MacLaury relates them to more fundamental primes: immobility for space and motion for time – an idea supported by other scholars (Evans 2006). Among other things this approach opens up new vistas for the cognitive study of space and time verbal representation.

The **mobility** in category construction may concern intra- and intercategorial aspects.

The **intracategorial** mobility, i.e. within the boundaries of one category, based on the similarity of different stimuli, is illustrated by the synonyms denoting the territory near the sea: the English words *shore, beach, coast* and their counterparts in Slavic languages (A. Głaz, S. Potapenko):

- *coast* establishes a dominant vantage since it reflects the biggest similarity of the area near the sea to the land which is the usual place of human activity;
- *shore* indicates a recessive vantage since it implies the vicinity of the sea, used by people more rarely;
- *beach* points to an intermediate strip between inland and the sea.

The Slavic words seem less consistent in that respect. The land next to the sea is described by two nouns both in Polish (*brzeg* and *wybrzeże*) and Ukrainian (*берег* and *узбережжя*), with the Polish *wybrzeże* and Ukrainian *узбережжя* covering more land, which may be interpreted as a dominant vantage. In translations, this inconsistency of the Slavic languages is compensated by words denoting land, i.e. Ukrainian *земля* and Polish *ląd*. For example, the English word *ashore* in the phrase *someone safe ashore* [Stevenson 1993: 70] is rendered by *ląd* in Polish, e.g. *jakby był na stałym lądzie* [Stevenson 1988: 59], and as *земля* ‘land’ in Ukrainian, e.g. *ніби стояв на твердій землі* [Стівенсон 2008: 83]. Moreover, in Ukrainian translations the dominant inland vantage is underscored by the nouns *острів* ‘island’, *місто* ‘town’ or *краєвид* ‘landscape’, reflecting the translator’s desire to emphasise the dominant vantage. For example, the English sentence *Jim Hawkins had slipped into a boat and was gone ashore with the rest* [Stevenson 1993: 107] is rendered by the word *острів* ‘island’ pointing to the dominant vantage of representing land, e.g. *Джім Гокінс сів у човна й разом з матросами поїхав на острів* [Стівенсон 2008: 128].

The English word *beach*, indicating the area between the shore and the coast suitable for human activities, is close to the Polish *plaża* but different from the Ukrainian *пляж*, naming the part of the coast mainly fit for rest. These preferences are demonstrated by the translation of the English *Men were demolishing something on the beach* [Stevenson 1993: 122] into Polish as *Kilku ludzi rozbijało coś siekierami na plaży niedaleko częstokołu* [Stevenson 1988: 106]. In this very case the Ukrainian word *пісок* 'sand' refers to the specific features of the beach, e.g. *Кілька чоловік рубали щось сокирами на піску навпроти частоколу* [Стівенсон 2008: 151].

Another example of the intracategorial motion is represented by the names of WATER CONTAINERS which in English, Polish and Ukrainian constitute a category of their own, based on the varying ratio between land and water, which presupposes different widths of the visual purview. English and Ukrainian are isomorphic in naming large masses of water such as *ocean* (Ukr. *океан*), *sea* (Pol. *morze*, Ukr. *море*), *lake* (Pol. *jezioro*, Ukr. *озеро*), but allomorphic in denoting smaller WATER CONTAINERS: five English nouns (*bay, cove, gulf, harbour, inlet*) correspond to just two words both in Polish (*zatoka* and its diminutive *zatoczka*) and Ukrainian (*затока* and the German borrowing *бухта*). The big number of English words denoting smaller water containers situated close to land can be explained by the fact that the languages of non-marine Slavic nations do not require minute differentiations of the coastline. Therefore the words *bays* and *inlets* from the English original *There fell out the map of an island, with latitude and longitude, soundings, names of hills, and bays and inlets* [Stevenson 1993: 48] are rendered with the units *zatoki* 'bays' and *małe zatoczki* 'small bays-DIMINUTIVE' into Polish, e.g. *Ze środka wypadła mapa jakiejś wyspy; zaznaczono na niej szerokość i długość geograficzną, pomiary głębokości, nazwy wzgórz, zatok i małych zatoczek* (Genitive plural) [Stevenson 1988: 38]. Conversely, Ukrainian prefers the terms *затоки* and *бухти*, e.g. *На стіл випала карта якогось острова з позначенням довготи й широти, глибини моря біля берегів, з назвами пагорбів, заток та бухт* [Стівенсон 2008: 55].

The intercategorial mobility is illustrated by the comparison of the words denoting *water* and WATER CONTAINER in English, Polish, and Ukrainian (Głaz, Potapenko). This study reveals that the English *water*, the Polish *woda* and the Ukrainian *вода* are related to the dominant vantage on the category, since they appeal to an individual's tactile experience of water use to meet the basic needs of drinking, washing etc. However, the reference to water containers, such as *sea, lake, ocean*, presents the recessive vantage since they are all seen as similar, undistinguished and therefore not mentioned explicitly: they are merely backgrounds for water as the figure.

The reason why it is water that is referred to, rather than specific CONTAINERS, seems to be the greater salience of the "medium" relative to which a person is positioned (water but not air or land), rather than the actual shape of the containers. Although the water in the sea is different than in lakes (salty vs. fresh; rougher vs. calmer) or rivers (moving as waves vs. flowing), the distinctions are downplayed.

Against the background of the WATER CONTAINERS category the English noun *water* construes the dominant vantage combining with the verbs denoting direct perception (*see somebody in the water*), position of objects over small water areas (*protrude, rise* etc. *above the water*) or movement into that area (*fall, get, plunge* etc. *into the water*). The same patterns are characteristic of the Slavic languages under comparison, which is demonstrated by the use of direct synonyms in the original text, e.g. *The water scarcely reached my waist* [Stevenson 1993: 170], and its translations into Ukrainian, e.g. *Вода ледве сягала мені до пояса* [Стівенсон 2008: 210].

The recessive vantage implying a broader purview, a larger distance from the conceptualizer and a more noticeable distinctness from the background, triggers the textual substitution of the noun *sea* for *water*. The recessive status of this vantage is based on the shift from touch as more direct source of sensation to vision and imagination necessary to construe concepts of large WATER CONTAINERS.

Another reason for the recessive vantage is that we progress from CONTENT to CONTAINER since the nature of the container becomes important as a result of increased attention to distinctiveness. In other words, a sea, a river, a gulf etc. are all different reservoirs, so we behave in relation to them differently. For example, navigation requires special skills and it is important that something is a specific type of "water container", not just "water".

Viewing modes

The idea of **viewing modes**, underlying varying degrees of attention to similarity or difference forming the dominant and recessive vantages, gives rise to the extended VT (Głaz).

The three types of viewing modes, distinguished in the extended VT, are non-discrimination, analysis and systemic synthesis:

- non-discrimination underlies the initial dominant vantage construction since it underscores the similarity (SS) of incoming stimuli forming a homogeneous mass;
- analysis results from attention to difference (DD) operating against the background of the dominant vantage;
- systemic synthesis (DD S) consists in attention to similarity against the background of difference.

The combination of the discussed modes with regular, strong (+), and weak (–) strengths of coordinates results in a list of 24 theoretically possible formulas.

Further analysis reveals that only ten formulas explain the meaning of English articles: seven of them concern the zero (nil) and indefinite articles associated with the dominant vantage while only three trigger the choice of the definite article indicating the recessive vantage.

The articles indicate the following viewing modes:

- the nil article triggers the non-discriminatory mode, or similarity (SS);
- the indefinite article indicates similarity followed by a degree of emphasis on difference (SS D);

- the definite article emphasizes difference (DD) underlying the formation of the recessive vantage.

The three main modes of viewing are linked to a number of particular cases of non-definiteness and definiteness.

The similarity mode (SS) is indicated by the combination of the nil article with the following words:

- uncountables (*bread, music, honesty*);

- nouns denoting the status of a person, which presents the homogeneous concept of mass, requiring a greater cognitive effort (SS+), underlies the nil form, e.g. *Henry became treasurer*;

- nouns in the plural reflecting the reduced strength of similarity (SS-), e.g. *lions, Italians, fractals.*

The initial similarity viewing mode followed by a degree of emphasis on difference (SS D) triggers the use of the indefinite article with the following words:

- uncountables (*a bread, a dry heat*);

- indefinite countables with non-specific reference indicate the augmentation of one coordinate coupled with the weakening of the other (SS+ D-) e.g. *I'd always wanted to write a historical novel*;

- indefinite countables with specific reference indicate weak homogeneity serving as a background for augmented difference (SS- D+), e.g. *She has just bought a new car*.

The emphasis on difference, indicated by the definite article, has three variants:

- the combination of specific reference with a generic aspect (DD S) explains the definite names of the so-called unique objects, e.g. *the sun*;

- the strong difference in combination with weak similarity (DD+ S-) explains the situational use of the article, e.g. *Where did you park <u>the car</u>?*;

- the weak difference coupled with strong similarity (DD- S+) elucidates the generic function, e.g. *<u>The human brain</u> has fascinated me ever since*.

However, the extended VT criteria for distinguishing similarities and differences accounting for varying viewing modes and vantages sometimes seem faulty since besides the similarity which underlies the stimuli forming a homogeneous mass and triggering the nil article, there is a co-referential type of similarity when the definite article refers back to the objects already mentioned resting on the more fundamental contrast between stability and motion.

The VT explanation of articles is close to the categorization levels discussed in the section on categorization:

- subordinate, represented by definites;

- basic, indicated by indefinites;

- superordinate, signaled by the zero article.

The Vantage Theory explains the reasons for relating a referent to the different levels of categorization.

According to the categorization approaches the articles express the following meanings:

- the definite article indicates the dominant vantage implying immobility and domineering in the whole purview (*the beauty of a girl*);

- non-definites indicate the recessive vantage since they signal a change in the focus of attention, i.e. movement outside the category the addressee is focused on. Non-definites differ in the representation of the recessive vantage: it can be unbounded, being linked to the superordinate categorization level in the case of the zero article (*beauty, tea*), and bounded, underlying the use of the indefinite article for basic categorization (*a beauty*; *a tea*).

The interaction of these vantages is exemplified by the following passage from *Jaws* by P.Benchly:

The great fish moved silently through the light water, propelled by short sweeps of its crescent tail. The mouth was open just enough to permit a rush of water over the gills.

This excerpt depicts the relation between two referents: a fish and water. The definite article with the noun phrases *the great fish* and *the light water* indicates the dominant vantage since the identified objects occupy the whole purview and indicate no change in quality. Against this background the noun phrase *short sweeps* indicates a recessive vantage since it presupposes a category movement from the referents denoted by the definites. Similarly, the noun phrase *the mouth* offers a dominant vantage since being within the limits of a particular object, i.e. a fish, it implies a slower movement than *a rush of water* over the grills indicating a different category.

From foregoing, it is evident that the explanation of articles within the VT framework requires further elucidation with attention to all the constituents of Vantage Theory.

Multiple-level vantage construction

The multiple-level vantage construction, based on the elemental image, similarity and difference underlying the dominant and recessive vantages, explains metonymic transfer in phrases comparing leaders of different ranks with the American President Barack Obama:

- a Ukrainian presidential nominee, e.g. *Fresh face wins reputation as Kiev's Obama* (Financial Times 7.04.2009);

- head of the British Liberal Party, e.g. *Nick Clegg declared the new Barack Obama* (Daily Telegraph 17.04.2010);

- an Italian governor, e.g. *Could Puglia governor Nichi Vendola be 'Italy's Obama'* (bbc.co.uk/news 13.12.2010);

- a mayor of a Russian city, e.g. *Volgograd Obama* (The Independent 4.08.2009).

A number of articles depict people differing from Barack Obama: one of the presidential nominees in the USA, e.g. *The unlikely rise of the anti-Obama* (Newsweek 24.10.2011) as well as a minister of an Indian state, e.g. *Why It Won't Happen: The improbability of an Indian Obama* (Times of India 19.11.2008), opposed to the American president, e.g. *India's Anti-Obama* (Newsweek 27.04.2009: 22).

The succession of vantages is reconstructed through the analysis of the texts about celebrities in several steps:

1) singling out the elemental image forming a category;

2) distinguishing the features linking the categorized referent to the elemental image which enables the reconstruction of the dominant vantage;

3) finding differences between the categorized element and the elemental image enabling the reconstruction of recessive vantages;

4) the reconstruction of a category.

The analysis reveals the following:

- first-level dominant vantage, indicated by the units occurring in all the texts, is ELECTED LEADER which includes presidents, party leaders, mayors etc;

- second-level dominant vantage is associated with the idea of CHANGE which is denoted by the corresponding nouns in all the texts;

- recessive vantage is represented by the parameters indicated by the units occurring in separate texts devoted to particular leaders – colour of the skin, age, movement up the status ladder, the knowledge of English, contacts with President Obama's team.

The analysis suggests that this type of metonymy rests on a two-level dominant vantage construction serving as the basis of comparing different leaders: ELECTED LEADER and CHANGE. Other vantages can be treated as recessive since they are not named in all the texts.

Complex explanations

The complex theory implying the interaction of the elemental image with the dominant and recessive vantages resting on immobility and mobility turns out to be fruitful in explaining syntactical relations.

In the VT frame work, the elemental image can be linked to the basic forms of linguistic signs, i.e. a non-modified nominal, a proper or a common noun. Against this background modified nominals reflect the preceding stages of vantage construction accumulated in the state of a concept before communication while predicates perform an on-line vantage construction. For example, in the sentence *After years of weakness a resurgent Russia is striking back* (*Newsweek* 30.01.2006: 26) the adverbial modifier *after years of weakness* marks a recessive vantage, evoked by the noun *weakness* (since it denotes the loss of qualities by Soviet Russia, i.e. an increase in the differences from the previous state); a dominant vantage is represented by the attribute *resurgent* (because it restores similarities with Soviet Russia), while the predicate *is striking back* marks its strengthening at a new stage.

The application of the described procedure to the analysis of headline structure reveals three types of relation between subject and verb reflected in three types of vantage construction:

- dominant type underlies the strengthening or restoration of a particular entity, e.g. *Iraq widow finds new love with her husband's best friend* (*The Times* 25.01.2007, 13);

- recessive vantage construction reflects the weakening of an entity, e.g. *Obesity plans are flawed* (same source, p. 1), or its utter destruction, e.g. *Graduate died in drug accident* (same source, p. 7);

- interdependent vantage construction rests on causal relations: the strengthening of one entity presupposes a change of another, e.g. *Scientists tighten security over germ terror threat* (same source, p. 1). In this example, the strengthening of security entails the weakening of terror threat but the latter can be treated as a reason for the measures being taken, though it becomes apparent only after reading the whole headline.

The **problems** facing the Vantage Theory are as follows:

1. it is important to spell out the criteria for the application of Vantage Theory to the study of various linguistic phenomena;

2. it is advisable to set limits of Vantage Theory application. Sometimes it seems that Vantage Theory proponents find it a universal explanation tool which can resolve all linguistic problems. It seems plausible since categorization treated as the basis for all other types of mental activity;

3. the effective linguistic adaptation of VT should take into account all the constituents suggested in the initial variant of the theory which seems to be a task for the future;

4. Vantage Theory should be compared and combined with other cognitive linguistic theories and especially with those dealing with categorization.

Questions for self-control

1. What is categorization?
2. What are the three approaches to the study of categorization?
3. What are the levels of categorizations?
4. What are the advantages of VantageTheory in comparison with other categorization theories?
5. What elements of category construction suggested by Vantage Theory are applied in current linguistic studies?

Further reading

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PART 5

MEMORY-BASED COGNITIVE MODELS OF LANGUAGE

Memory-based language models mainly include the structures meant for the storage of verbalized knowledge: concepts, concept-structuring schemas, worldview as a repository of various concepts.

5.1. Concepts

In Western tradition information storage is mainly studied by frame semantics, radial network, prototype theory, schematic networks which represent language as structure (Basic readings 2006). The East-European tradition primarily focuses on concepts which will be the first to be discussed.

5.1.1. Definition of concepts

No adequate definition has ever been provided for most concepts (Geeraerts 2010). The explanatory adequacy of a concept-based semantics is undermined by a lack of agreement among investigators of different disciplines about what the concepts underlying meaning are. The different definitions of concept can be divided into linguistic, philosophical, psychological, metaphoric and complex.

The **linguistic definitions** treat the concept as a theoretical entity which stands for the meaning of a word. This entity is claimed to be related both to other concepts and to certain actions that can be carried out by individuals who possess the concept. With respect to actions, for example, someone who knows the meaning of the *tiger* can make judgements about whether something is or is not a tiger; that is he has a rule which specifies what counts as being a tiger. Besides the concept expressed by the word *tiger*, for example, must be stated in terms of its relations to other concepts, such as those expressed by the words *animal, cat, ferocious, lion* etc. These ties fall into various groups. For instance, both lions and tigers are big. They are both animals and cats (class membership). In this vein, in order to understand any one concept we must state:

- a rule for specifying that counts as an instance of that concept;
- relations for specifying between those concepts and others (D.T.Hakes).

Philosophers find it a mistake to confuse a concept with the meaning of a word. Therefore they define the concept as a way of holding together the mind, the manner of classifying, a means of thinking about, a place of thought for things or characteristics in the world. A philosopher is expected to be concerned with a concept mainly as a way of achieving a clearer, deeper and more adequate understanding of the world around (Buchavarov).

Psychological definitions, popular in cognitive linguistics, use ‘concept’ in the sense of ‘whatever psychological architecture supports meaning’ (Evans) or ‘a nonlinguistic psychological representation of a class of entities in the world’ (Murphy). Concepts are mental representations, which can potentially serve as

semantic pole of a linguistic expression. The concepts which perform the latter function are identified as lexical concepts (V.Evans).

The **metaphoric definitions**, popular among Russian linguists, compare a concept with a cloud, an onion, a drop of mercury, an egg etc.

The **complex** concept definition was suggested by Ye. S. Kubryakova (1996) who treats it as a functional and meaningful unit of memory, of conceptual system and lingua mentalis, of the worldview, reflected in human psyche ("концепт – оперативная содержательная единица памяти, ментального лексикона, концептуальной системы и языка мозга (lingua mentalis), всей картины мира, отраженной в человеческой психике").

The complex definition outlines two approaches to the study of concepts:

- systematic, treating them as static units of memory denoted by words;
- functional, regarding concepts as mental units, forming more complicated structures in speech and discourse.

5.1.2. Concepts vs categories

Categories and concepts are treated as analogous or different phenomena.

The scholars drawing a distinction between concepts and categories (Thagard and Toombs 2005) regard concepts as mental representations that usually correspond to particular words. Meanwhile, a category is treated as a class of things in the world, for example the class of dogs. Consequently, categorization is seen as the process of dividing the world into categories, and usually involves constructing concepts that provide mental representations of those categories.

In this case, psychological and philosophical models of categorization are used for the description of concepts. Psychological sources draw a close analogy between categories and concepts. Consequently, a concept is defined as a mental category that groups objects, relations, activities, abstractions, or qualities (Wade and Tavris 1990) while a category is seen as a way of categorizing items and demonstrating which items are related to one another (Encyclopedia of Psychology).

The **merger** of concepts and categories is reflected in the postulation of "conceptual categories" including THING, PATH, PROCESS which are even treated as conceptual parts of speech (Jackendoff 1992).

To sum up, at the present stage of cognitive linguistics development categories seems to be applied to differentiating more stable phenomena, e.g. the category of number, gender etc, while concepts are treated as representations of more dynamic mental content.

As will be seen, categorization as a more general phenomenon determines concept differentiation.

5.1.3. Differentiation of concepts

The main problem facing the study of concepts is their differentiation. Since **linguistics** lacks its own criteria for distinguishing concepts, it is an open secret

that concepts are distinguished by intuition which prompts scholars to name them by the following units:

- abstract nouns, e.g. FRIENDSHIP, FREEDOM, PRIVACY, GENTLEMANLINESS etc;
- word combinations, e.g. SPATIAL ORIENTATION, ABILITY TO LIVE, COMMON SENSE etc;
- concrete nouns, e.g. SOUL, HEART, MIND, EXTRATERRESTRIAL, VAMPIRE, CRIMINAL etc.

Taking into account that the English vocabulary boasts a million units the potential number of conceptualist studies amounts to a million. But if we agree that concepts are named by word combinations, proper names and can be studied from the cross-linguistic perspective the number of conceptualist works may turn out to be infinite.

With the absence of linguistic criteria for concept differentiation we turn to those fields which were the first to put forward the idea of a concept: philosophy and psychology.

In **philosophy** concept differentiation was proposed by L. Wittgenstein who formulated three criteria a concept must satisfy:

1) it must be a philosophical concept, i.e. it must have a sort of generality;
2) a concept must be clear, i.e. it must be visible intellectually;
3) it must be distinct in aspect of similarity and distinction.

In **psychology** the concept is endowed with the following features related to the principles of categorization (G.L.Murphy):

1) it must be primarily prototype-bound;
2) its description must be part of a knowledge-based representation scheme, in which concepts positioned within both a structured hierarchy and a broader theoretical framework;
3) the concept representations are schemata rather than traditionally distinguished feature lists;
4) the role of exemplars maybe best accounted for within the context of episode memory.

The exemplar view considers concepts to be represented in terms of individually remembered tokens. While accounting well for empirical data from category learning experiments, this approach experiences serious problems in explaining the more serious phenomena of hierarchical structures, induction, conceptual combination, and word meaning.

The prototype view regards concepts as unified summary representations abstracted from each category member. Its weak point lies in the lack of computational modeling. The prototype and exemplar accounts of concepts are combined by the knowledge-based approach which argues that concepts are part and parcel of our general knowledge about the world.

The basis for an **explanatory** theory of concepts is suggested by the traditional conceptual property of invariance, i.e. concepts are identical from one individual to the next (Fodor 1998). Invariance is claimed to be an ancient requirement on concepts going back as far as Aristotle. Hence, from the

psychological perspective concepts are invariant psychological objects, structures, identical between individuals and within individuals over time (Reimer 2013), or whatever psychological entities underpinning meaning'.

Psychology also offers a categorization approach to the differentiation of concepts which takes into account the categorization levels suggested by E. Rosch: basic, at which the individual interacts with the surround: subordinate, i.e. a lower level, and superordinate, i.e. the level of generalization (Rosch 1978). In this vein, the appropriate level for distinguishing concepts is the superordinate, which is reflected in the intuitive use of abstract nouns for denoting concepts.

The basic level differentiation of concepts leads to criss-crossing which is proved by the opposition of the concepts CRIMINAL and CRIME. The concepts distinguished at the subordinate level, e.g. RUSSIAN LANGUAGE, SOCHI OLYMPIAD 2014, have much in common with other units of a particular class which gives grounds to regard them as key words (Wierzbicka), subordinated to more general concepts of LANGUAGE and OLYMPIAD. Consequently, the linguistic units categorizing the world at the basic and subordinate levels can be treated as key words of different cultures.

One method of concept identification consists in relating them to the structures of sensorimotor experience. Accordingly, they are subdivided into imagistic, related to the sensorimotor experience, and responsive, reflecting the state of a person, his / her emotional and temporal experience [Evans 2004: 258]. With recourse to the sensorimotor experience the multitude of concepts can be reduced to separate types linked to perception. They can be typified with the help of image schemas, i.e. recurring dynamic patterns of our perceptual interactions and motor programs that give coherence and structure to our experience (M. Johnson). Some image schemas may serve as the basis of the formation of concepts such as BALANCE, COUNTERFORCE while others structure more complicated conceptual structures or reconstruct various effects, e.g. modesty, responsibility etc.

Counterconcepts (Rus. антиконцепти) contrast with the concepts according to the principles of positive and negative. In a number of studies the term "counterconcept" is treated as an antonym, or the name of a different concept. However, Yu. S. Stepanov sticks to the view that a counterconcept opposes a different concept, i.e. the counterconcept indicates disagreement, represents a form of protests etc. His analysis of Dostoyevsky's works reveals the following concepts and counterconcept: HEALTH – ILLNESS; SUFFERING – JOY; FOOLISHNESS – BEAUTY; SINCERITY – LIE; DECENCY – COWARDNESS; HUMAN – INSECT; HUMAN – WALL; FREEDOM – EXPEDIENCE. The cited list suggests that the opposition between concepts and counterconcepts lies outside language.

Attempts at cognitive typology of concepts fall into three approaches:

- labeling, when a word is equated with a particular concept;
- decompositional, when a hierarchy of different words is treated as means of profiling various aspects of a concept or domain;

- compositional, with a concept represented by a particular word linked to a restricted number of universal primitives forming a concept of higher order.

5.1.4. Labeling approach

The labeling approach equates words and concepts, i.e. a word names the concept it expresses, e.g. when we say that English *green* expresses the concept GREEN. Though it is the most popular approach to the study of concepts in Russian and Ukrainian cognitive linguistics it tells us nothing about the psychological architecture supporting language. It is supposed that one can simply interpret the terms of the definition as concepts, and see in the structure of definitions clues to the structure of word's conceptual representation.

The strongest argument in favour of the labeling understanding of concepts is **simulation**, i.e. the reenactment of perceptual, motor, and introspective states acquired during experience with the world, body, and mind. As experience occurs, e.g. laying the table, the brain captures states across the modalities and integrates them with a multimodal representation stored in memory, i.e. how a table looks and feels, the action of putting a cloth, introspections of expectations. Later when knowledge is needed to represent a category, e.g. table, multimodal representations captured during experiences with its instances are reactivated to simulate how the brain represented perception, action, and introspection associated with it (Barsalou 2006).

Simulation is treated as the basis of concept formation permitting successful interaction with environment: we can simulate object's real behaviour to think about our interaction with it (Carey 2009).

The most comprehensive **classification** of the concepts from the labeling perspective was offered by Ukrainian scholar A.N.Prikhodko.

The linguist distinguishes the following ways of concept classification:

- thematic, e.g. emotive etc;
- discursal, e.g. pedagogical, religious, political etc;
- axiological, delineating different types of values, e.g. personal, author's;
- microsocial, e.g. family;
- macrosocial, e.g. roles, status,
- ethnic and universal, i.e. values of modern civilization, e.g. medival, Christianity.

The discussed classification of concepts rests on a number of oppositions which include: parameters, universality, regulation, positive / negative axiology.

Parametric concepts are linked to quantitative or qualitative features, i.e. parameters: size, e.g. GIANT, TSARSKY KOLOKOL (Rus. Царь-колокол); quality, e.g. A BEAUTY, A MACHO; degree, e.g. RICHNESS, POVERTY; status, e.g. CHIEF etc.

The basic parametric concepts include SPACE, TIME and CAUSE as well as more specific ones comprising MARRIAGE and HOSPITALITY representing various customs: BROTHER rests on blood relations, TEMPLE – religious

traditions, different kinds of HOUSEHOLD, reflecting the way of human existence.

Non-parametric concepts are considered to emerge at the level of perception, images and associations, e.g. SOUL, LOVE, GLORY, FEAR etc.

Universal concepts are linked to representing all-encompassing features and have a global character since they are axiologically important for all humankind. Some of them are regarded as superconcepts because in separate types of discourse they form a certain circle. For instance, the superconcepts of religious discourse include GOD, SOUL, HOPE, BELIEF, LOVE. ***Specific concepts*** are linked to certain subcultures – social, ethnic, professional etc. Accordingly, the specific oriental concept is HOSPITALITY, the German concept is PUNCTUALITY, while the East-Slavic concept is JUSTICE. Different cultures vary in the representation of the LAW, RICHNESS, POVERTY concepts.

Regulatory concepts absorb certain norms and conventions determining the scenarios and cultural dominants in human conduct, comprising TRUTH, FRIENDSHIP, PUNCTUALITY which determine social behaviour. Regulatory concepts register the code of human behaviour in particular society. Those norms can be social (LAW), institutional (VIGILANCE) and even individual (HONOUR, DUTY).

The variegated ***non-regulatory concepts*** can be categorical, religious, biosocial, biovital, ethnocultural, ethnospecific which are prescription-free or have a subdued prescription role. They include TIME, MOTHER, BIRCH, PRESENT, CALM.

Axiological concepts are a special object of research by the Donetsk cognitive linguistic school headed by O. L. Bessonova. Its representatives study the basic concepts within the evaluative theasaurus, its systematic and hierarchical structure, iconicity, nucleus and periphery, conceptual universals, trace the reflexion of the prototypical conceptual multilevel structure in the linear organization of dictionary definitions, draw conclusions about the influence of gender on the value perception and verbal representation.

5.1.5. Decompositional approach

The decompositional approach treats nominative units as means of profiling various aspects of concepts, or domains in Langacker's sense, i.e. words – especially synonyms – denote different aspects of a concept.

This approach is best exemplified by section names and headlines in English magazines. According to the labeling view the nouns used in those positions are supposed to name particular concepts. However it is not always the case which is demonstrated by the use of the following units in the names of sections and rubrics: place names (*Asia, Japan, Beijin*), names of persons (*Murdoch*), organizations (*Crysler*), and common nouns denoting abstract phenomena (*politics, religion, trade, moguls* etc.).

In the vein of the labeling approach it is tempting to link separate words to particular concepts. However, there are several arguments against it.

Firstly, similar headlines in the articles about different countries suggest that the semantics of place names is subordinated to a more general domain of location. For example, the word combination *helping hands* occurs in the headlines about Pakistan, e.g. ***Pakistan:*** *Helping Hands* [Newsweek 24.10.2005 : 26], and China, e.g. ***Asia:*** *Helping Hands* [Time 2.06.2008 : 16]; the utterance *The Empire Strikes Back* characterizes both China, e.g. ***China:*** *The Empire Strikes Back* [Newsweek 12.09.2005, 51], and Russia, e.g. ***Russia:*** *The Empire Strikes Back* [Newsweek 30.01.2006, 26-27].

Secondly, the inclusion of the concepts, suggested within the labeling approach, into more general conceptual domains is substantiated by the foregrounding of abstract nouns into the names of sections and rubrics, e.g. *Media*.

The analysis of English magazine discourse suggests that the concepts singled out in the framework of the labeling approach fall into seven conceptual domains differing with respect to distance from the human body as centre of orientation:

- physiological domain, encompassing the concepts linked to the basic needs of eating (*food*) and health presupposing the preservation of the body's integrity (*health, medicine, abortion*);
- somatic domain, including the concepts representing physical threat to the human body from earthquakes (*earthquake*), avalanches (*avalanche*), the elements (*weather*), and the surroundings (*environment*);
- perceptual domain, combining the representations of art (*art*), photography (*photography*), fashion (*fashion*), sports (*sport*), movies (*movies*), theatre (*theatre*), television (*television*), music (*music*);
- cognitive domain, related to the concepts of mind (*mind*), education (*education*), science (*science*);
- business domain (*business*), encompassing various business fields named by a number of units: *trade, retail, market, economy*;
- social domain, including the fields of justice (*justice, crime, terror*), religion (*religion*) and politics (*politics*);
- international relations domain, comprising the spheres named by the nouns *immigration*, *policy*, *diplomacy* as well as those which denote spying (*espionage, intelligence*), and defense (*defence, warfare*).

The analysis of the English magazine discourse reveals that the perspectives on the perceptual domain are profiled by the nouns *art*, *photography*, *fashion*, *sport*, *movies*, *theatre*, *television*, *music*. Each of them profiles domain sections relative to different senses which is captured by the ENABLEMENT image schema which include source, target and relations between them represented by the communication channel.

The target related to hearing underlies the concept of MUSIC; the target linked to seeing forms the concepts of PHOTOGRAPHY, FASHION and SPORTS. The target combining seeing, hearing and location underlies the concepts of THEATRE, TELEVISION, and CINEMA. The interaction of several perception channels is embodied in the concepts of CULTURE and ENTERTAINMENT.

Nominative units in headlines attract the reader's attention by profiling various aspects of **the source** of perceptual influence. They include actors, companies and artifacts produced by them, i.e. publications, excerpts, contents, characters etc. For example, the headline ***Media:*** *No downers in Downtown* (Newsweek 23.01.2012, 12) denotes characters of a film (*downers*) and the film proper (*Downtown*).

The verbal representation of the perceptual influence source undergoes a number of modifications with respect to different perspectives: close-up, zooming out, zooming in etc. The zooming-out perspective, resting on the PART – WHOLE relation, is offered by the words *entertainment* and *culture*, which also encompass the nouns used in the names of other rubrics. For example, the headlines in the *Entertainment* rubric contain the nouns *movies*, e.g. ***Entertainment:*** *The Phantom Movies* (Newsweek 17.05.1999, 60), and *Hollywood*, e.g. ***Entertainment:*** *Hollywood Goes Wall Street* (Newsweek 7.08.2000, 64). In addition, the *Culture* rubric includes a headline with the noun *art*, e.g. ***Culture:*** *Art for Autumn* (Newsweek 7.09.1998, 40), with a subsidiary headline zooming onto representatives of different artistic trends – *Fall Preview: Mozart and Morissette, Oprah and Travolta, Stephen King, Alice Walker – even Elton John's "Aida". Happy Harvest.*

The source of artistic influence can be identified by axiological and emotive units implying the reaction of the addressee positioned as target of persuasion. Axiology is rendered by the words with scalar meaning, e.g. ***Art:*** *Degrees of Difficulty (*Newsweek 24.10.1994, 54), prepositions relating the perceived objects to the VERTICALITY SCHEMA, e.g. ***Theater:*** *Mind Over Matter* (Newsweek 3.04.1995, 52). The choice of axiological units takes into account the peculiarities of a particular domain which is exemplified by a headline about the quality of fabric, e.g. ***Fashion:*** *As Strong as Sheer Silk* (Newsweek 23.11.1998, 62).

The target of perceptual influence is profiled in headlines by the names of nations, e.g. ***Television:*** *Israel Looks Back* (Newsweek 30.03.1998, 53), nouns designating activity, e.g. ***Movies:*** *Witnessing the Inferno* (Newsweek 28.09.1998, 46), or visual perception peculiarities, e.g. ***Photography:*** *Double Vision* (Newsweek 28.09.1998, 48).

The communication channel, establishing contact between the source and target, is profiled in the headlines about television and cinematography by the units which denote the following:

- zooming-in, e.g. ***Movies:*** *Close-Up on Will* (Newsweek 22.02.1999, 48);
- technical devices, e.g. ***Television:*** *Candid Cameras* (Newsweek 25.01.1999, 56);
- means of disseminating images, e.g., ***Television:*** *Changing Channels* (Newsweek 7.06.1999, 64).

The **place** of impact on the addressee's senses is profiled by the following units:

- names of museums, e.g. ***Art:*** *Tate at the Top* (Newsweek 8.05.2000, 60);
- names of exhibitions, e.g. ***Art:*** *Millennial Biennial* (Newsweek 10.05.1999, 64);

- names of film festivals, e.g. ***Movies:*** *The Spectacle of Cannes* (Newsweek 22.05.2000, 64).

In some cases a place name can be fronted to the rubric, e.g. ***Cannes:*** *The Death-Camp Game* (Newsweek 1.06.1998, 59).

Complex profiling consists in combining perceptual (*media, fashion*) and locational (*Hollywood*) concepts. Consequently, the locative sections of magazine discourse are indicated by names of countries and continents, e.g. ***Media:*** *El Tigre and His Mexico* (Newsweek 6.03.2000, 22), or describe different types of activities, e.g. ***Media:*** *Stirring the Fishbowl* (Newsweek 9.03.1998, 33). Sources of perception with a fixed position are included into locational rubrics. For example, in the *Europe* section the headline ***Art:*** *One Leonardo, to Stay* (Newsweek 7.06.1999, 31) deals with a fresco in a church of a small European town.

The decompositional approach, linking concepts to profiling sections of particular domains surrounding the human body, seems advantageous in comparison with the labeling approach since it takes into account the behaviour of words in speech and discourse.

5.1.6. Compositional approach

Compositional, or atomistic, approach links a concept, represented by a particular word, to a restricted number of universal primitives forming any concept of higher order.

Semantic primes are a basic set of innate ‘concepts’, or perhaps more precisely, a non-conscious propensity to acquire those concepts and encode them in sound forms (words). The words that those concepts become encoded in are called semantic primes, or alternatively, semantic primitives.

Words that qualify as semantic primes need no definition in terms of other words. In that sense, they remain undefinable. We know their meaning without having to define them. They allow us to construct other words defined by them. Our common grandmothers and grandfathers many generations removed may have encoded those concepts in a specific vocabulary, and therefore had an original set of semantic primes. It is believed that the dispersal of their descendants from their African homeland throughout the world enabled the evolution of many different languages, each with a unique set of sound forms for their words. Nevertheless the same set of semantic primes remained within each language, though expressed in differing sound forms. Thus, it is concluded that all modern humans have the same set of semantic primes, though not the same set of sound forms expressing them, rendering semantic primes cross-culturally universal.

This approach is developed by the Polish linguist A. Wiezbicka, who resides in Australia. With her followers she has developed a language of primes consisting of a highly constrained and disciplined variety of reductive paraphrase known as **the natural semantic metalanguage**. Its 2002 version consists of about 60 elements postulated to be universal semantic primes. They are grouped into 15 classes of roughly comparable elements.

The groups of proposed semantic primes are the following (Goddard and Wiezbicka 2002):

1. Substantives – I, YOU, SOMEONE, PEOPLE, SOMETHING, BODY
2. Determiners – THIS, THE SAME, OTHER, ELSE
3. Quantifiers – ONE, TWO, ALL, MANY/ MUCH, SOME
4. Mental predicates – WANT, FEEL, THINK, KNOW, SEE, HEAR
5. Speech – SAY, WORDS, TRUE
6. Actions and events – DO, HAPPEN, MOVE
7. Existence and possession – THERE IS, HAVE
8. Life – LIVE, DIE
9. Evaluators and descriptors – GOOD, BAD, BIG, SMALL
10. Time – WHEN, TIME, NOW, AFTER, BEFORE, A LONG TIME, A SHORT TIME, FOR SOME TIME, MOMENT
11. Space – WHERE, PLACE, HERE, BELOW, ABOVE, FAR, NEAR, ON ONE SIDE, INSIDE, TOUCHING
12. Logical concepts – NOT, MAYBE, IF, CAN, BECAUSE
13. Intensifier, augmentor – VERY, MORE
14. Taxonomy, partonomy – KIND OF, PART OF
15. Similarity – LIKE

The primes are used for the explanation of various phenomena, which include deities, feelings etc.

Below you will find examples of the use of the primes to explain a number of phenomena.

The analysis of the meaning of *I am disappointed* shows that the corresponding concept is factored into more basic conceptual elements corresponding to the assumed series of psychological events which produce the experience of disappointment itself. They are *feel, think, good, because of, know, bad*:

a. I feel something because I thought something
b. sometimes a person thinks
c. 'I thought that something good would happen
d. I felt something good of this
e. I know now: this good thing will not happen'
f. when this person thinks this person feels something bad
g. I felt something like this
h. because I thought something like this (Wierzbicka 1999).

A more complicated analysis of the THE HOLY TRINITY given below is mainly based on the semantic primes *someone, people, good, things* etc:

There is someone not like people
this someone is someone good
if this someone wants something to happen this something is something good

if this someone wants to do something this someone can do it
everything exists because this someone can do it
everything exists because this someone wants it to exist
people exist because this someone wants them to exist
people exist because this someone wants them to exist
this someone wants people to exist
because this someone wants to do good things for people

people can think about this someone like this:
"there is one someone like this, there are no more someones like this
at the same time this someone is like two someones"

when people think about this someone in this way
["this someone is like two someones"]
they think about these two someones like this:
"one of these two someones exists because he exists, not because of anything else
because this one someone exists, the other someone exists
this one someone wants to do good things for the other someone
this other someone wants to do the same
if this one someone wants this other someone to do something
this other someone wants to do it because of this
these two someones are like one someone"

when people think about this someone in this way
["this someone is like two someones"]
they can think about this someone like this at the same time:
"with these two someones there is someone more
this someone is not someone else
this someone exists because these two someones exist
this someone can be with these people
people can never see this someone
when this someone is with some people
these people can do many good things because of this
when this someone is with some people
these people want to do good things for other people (Wierzbicka 2004).

Further directions of the conceptualist approach development:

- its inclusion into the functional framework which allow the on-line use of the suggested primes;

- comparison with other approaches which employ primitive concepts: image schemas, categorization theories etc.

Challenges for the conceptualist theories:

- the conceptual structures advanced in linguistic semantics as the stable, unchanging determinants of meaning seem particularly unnatural components of an essentially temporal, processual psychology;
- there exists the problem of matching: if we have a concept of a cat and match it to the real-world situations in the course of reference we do not know how this matching happens. It is important to know how the cognitive system determines whether the real world situation matches the literal meaning;
- the role of concepts in the cognitive activity of an individual is far from clear: the thinking for speaking hypothesis (Slobin 1996) runs that language can reveal only processes immediately subserving on-line performance, which casts doubt on the claim that language offers a true picture of concepts;
- the works in neurophysiology (Damasio 2000) and psychology (Barsalou 2008) hint that concepts are couched in representational codes that are specific to our perceptual systems (Prinz 2002) which seems to point a further direction of conceptualist research.

5.2. Concepts and schemata

The study of concepts – especially within the labeling approach – requires their structuring carried out by a number of schemata, which include frames, scripts, scenes, scenarios, idealized cognitive models (ICM), folk theories etc. Following Fillmore (1982), we shall use *frame* as a cover term for that set of structures.

Frames are treated as innate structures which are not intimate but acquired through socialization, constructed out of experience and are diachronically and culturally dependent. In G. Cook's view (1990) some of those who step outside the predictable patterns are vilified, and others are glorified; some are called mad, even criminal, others are called individualists, poets, comedians, philosophers.

The slight differences of those structures are as follows.

Frame is defined as a static mental representation of a stereotyped situation like being in a certain kind of a room or going to a birthday party.

Idealized cognitive models (ICM) are treated as typified conceptions of our world. The word *bachelor*, for example, is defined relative to an idealized model which suggests that our society is monogamous, persons marry once they have reached a certain age, and marriage involves people of opposite sexes (cf. Lakoff 1987: 70).

Script and *scenario* refer to the dynamic representation of a situation, or event such, as going to a restaurant.

Schemas, *or schemata*, are treated as data structures representing stereotypical patterns, which we retrieve from memory and employ in our understanding of discourse (Cook 1990).

Though one can doubt the various types of schemata, there is ample evidence in favour of their existence: people questioned about a text or asked to

recall it, frequently fill in the details which they were not actually given, but which a schema has provided for them.

The common denominator of such terms is a "structure of expectation" which can be spelled out as follows: based on one's experience of the world in a given culture a person uses this knowledge to predict interpretations and relationships regarding new information, events, and experiences (V. Haser).

Frame / schema theory

The frame theory is generally associated with Marvin Minsky's work in artificial intelligence. It is assumed that in his research Minsky takes up a notion introduced by the psychologist Frederick Bartlett in 1932 who stated that past operates as an organized mass rather than a group of elements each of which retains its specific character. According to Bartlett when one encounters a new situation one selects from memory a structure called frame which is a remembered framework to be adapted to fit reality by changing details as necessary.

The structure of a frame. It has several levels. The fixed top levels represent those components which are always true. The lower levels have many terminals, or slots, which must be filled by specific instances or data. Those specific instances can themselves be smaller sub-frames, and usually have to fulfill certain conditions given by the terminals through what Minsky calls markers. A frame's terminals are normally already filled with 'default' assignments. The default assignments are attached to their terminals, so that they can be easily displaced by new items that fit better the current situation. They can serve as variables or as special cases for "reasoning by example", or as "textbook cases" and often make the use of logical quantifiers unnecessary.

There is no simple way to observe frame structure in detail. According to Ungerer and Schmid FLYING ON A PLANE frame consists of a number of primary sub-frames PILOT, FLIGHT ATTENDANT, LIFE VEST and several peripheral sub-frames which include EATING, WATCHING THE MOVIE, GOING TO THE TOILET etc.

A typical room-frame is supposed to have three or four visible walls, each perhaps of a different kind. One knows many kinds of walls: walls with windows, shelves, pictures, and fireplaces. Each kind of room has its own kinds of walls. We are expected to possess something like a BEDROOM frame, a HOSPITAL frame, a SCHOOL frame. Each of them is composed of certain typical components such as BED, LAMP, BED-SIDE etc. It is believed that when we encounter a new situation a selecting and matching process begins: first, a frame is selected on the basis of partial evidence or expectation; secondly, we compare the new experience, e.g. a classroom, to the selected frame of CLASSROOM. Thirdly, we assign features of this new experience, a particular board, desks etc.

In Minsky's view, before you enter a room, you usually know enough to "expect" a room rather than, say, a landscape. You can often select a certain particular room. Then many assignments are already filled. One has to assign to the frame's terminals the things that are seen. If the room is familiar, some are already

assigned. If no expectations are recorded already, the first priority might be locating the principal geometric landmarks.

Relying on the frames one can say a lot even about an unfamiliar room. Most rooms are like boxes, and they can be categorized into types: kitchen, hall, living room, theatre, and so on. One knows dozens of kinds of rooms and hundreds of particular rooms; one no doubt has them structured into some sort of similarity network for effective access.

Frames are **classified** in different ways taking into account their complexity, and phenomena they represent. According to the last criterion there are frames for objects, e.g. PEAR TREE, ROAD, or those referring to events: PERSONAL ENCOUNTERS, CONFRONTATION, ACCIDENT, THEFT.

When a frame encounters trouble – when an important condition cannot be satisfied – something must be done. Minsky envisions the following major kinds of **procedures**:

MATCHING – when nothing more specific is found, we can attempt to use some 'basic' associative memory mechanisms. This will succeed by itself only in relatively simple situations, but should play a supporting role in the other tactics.

EXCUSE: An apparent misfit can often be excused or explained. A "chair" that meets all other conditions but is much too small could be a "toy". If an ideal does not match reality because it is basically wrong, it must be replaced. We need not abandon an ideal because of a failure to instantiate it, provided one can explain the discrepancies in terms of such an interaction. Such an excuse can save a failing match in the following cases: occlusion when a chair might occlude another chair or a table; broken, a visually missing component could be explained as physically missing, or it could be broken; parasitic context, an object that is just like a chair, except in size, could be (and probably is) a toy chair. The complaint "too small" could often be so interpreted in contexts with the other things too small, children playing, peculiarly large "grains".

ADVICE and SIMILARITY NETWORK: The frame contains explicit knowledge about what to do about the trouble. When the house is not familiar, a "logical" strategy might be to move up a level of classification: when you leave one room, you may not know which room you are entering, but you usually know that it is some room. Thus one can partially evade lack of specific information by dealing with classes and one has to use some form of abstraction or generalization.

SUMMARY: If a frame cannot be completed or replaced, one must give it up. But first one must construct a well-formulated complaint or summary to help whatever process next becomes responsible for reassigning the subframes left into limbo.

Frame theory in linguistic studies. Minskian frames have been employed to explain a number of linguistic phenomena which include the English article, textual coherence, discourse structure, the use of key words.

As for **the English definite article** traditional grammars give two main explanations: it occurs before a noun referring to something unique, or before a noun which has become definite as a result of being mentioned a second time. A

typical instance of the second of these rules is exemplified by the following extract: *It was late and we decided to call a taxi. Unfortunately the driver spent much time finding our house* (Cook 1990). In this example the definite article in the noun phrase *the driver* is explained by the fact that the addressee has a schema of a car which contains a slot for a driver and we assume that a taxi that arrives at our house has a driver. It is as though it has already been mentioned.

This explanation can be projected onto situations with leaders, i.e. any person with a unique status, e.g. *The only person who isn't looking forward to the weeklong siesta is the mayor* (Newsweek 15.06.1998, 13), authorities of a country, e.g. *"East meets West" is said to contain a blunt account of his clashes with the Chinese government* (Newsweek 9.03.1998, 3).

A similar explanation for the use of the definite article utilizes a restaurant script (Schank, Abelson 1977: 38): *John went to a restaurant. He asked the waitress for coq au vin. He paid the check and left.* In this case, the definite phrase *the waitress* is ascribed to the existence of a restaurant script in our mind. However, the things are not as simple as that. Much seems to depend upon the context which determines the way the schema is evoked. Counterexamples offered by T.Givon show that in spite of the restaurant schema utterances with the indefinite article are quite possible. The statement *She went into a restaurant sat down and waited* can be supplemented with a number of different utterances: *Eventually a waiter came in; No waiter was anywhere to be seen; She could have used some food, she thought; She needed a warm place to hide; It was nice to hear some human voices*.

Some scholars link the use of articles to more general structures related to the PART – WHOLE relations, e.g. *We arrived in a village. The church was closed* (Mievelle).

Frames provide for **textual coherence** which is assumed to be established by the hearers, not the texts, although the textual cohesive devices play an important role which is demonstrated by the following dialogue:

A. There's the doorbell.

B. I'm in the bath.

It is argued that the first utterance opens a frame which allows to treat the second move as an answer. Therefore it is termed as a [QUESTION] frame (Bednareck 2005).

Demonstrating the influence of frames and schemas on the structure of discourse G. Cook (1990: 69) suggests comparing the following two passages describing the same event:

(1) *I woke up at seven forty. I made some toast and a cup of tea. I listened to the news. And I left for work at about 8.30.*

(2) *I woke up at seven forty. I was in bed. I was wearing pyjamas. After lying still for a moment, I threw back the duvet, got out of bed, walked to the door of the bedroom, opened the door, switched on the landing light, walked across the landing, opened the bathroom door, went into the bathroom, put the basin plug into the plughole, turned on the hot tap, ran some hot water into the wash basin, looked in the mirror …*

In Cook's view, although the second passage is true, we might not be surprised if the judge interrupted this witness and accused her of being facetious, or told her not to waste time. The main question here is *How does the witness assess the amount of detail required?* And if the court wants to know the whole truth, why do they want any details omitted? There is in fact an infinity of extra detail that could be added, even to the second version.

At the **syntactical level** the application of Minsky's ideas is demonstrated by the analysis of Chomsky's famous sentence "*colorless green ideas sleep furiously"*. The dominant frame is argued to be that of someone sleeping: the default system assigns a particular bed, and in it lies a mummy-like shape-frame with a translucent green color property. In this frame there is a terminal for the character of the sleep – restless, perhaps – and *furiously* seems somewhat inappropriate at that terminal, perhaps because the terminal does not like to accept anything so "intentional" for a sleeper. "Idea" is even more disturbing, because one expects a person, or at least something animate. One senses frustrated procedures trying to resolves these tensions and conflicts more properly, here or there, into the sleeping framework that has been evoked.

This analysis proves that if the smaller fragments – phrases and sub-clauses – satisfy subframes well enough, an image adequate for certain kinds of comprehension could be constructed anyway, even though some parts of the top level structure are not entirely satisfied. If the top levels are satisfied but some lower terminals are not we have a meaningless sentence; if the top is weak but the bottom is solid, we can have an ungrammatical but meaningful utterance.

Frame systems. Collections of related frames are linked together into frame systems. The effects of important actions are mirrored by transformations between the frames. Different frames of a system share the same terminals: this is a critical point that makes it possible to coordinate information gathered from different viewpoints.

The frame systems are linked, in turn, by an information retrieval network. When a proposed frame cannot be made to fit reality – when we cannot find terminal assignments that match its terminal marker conditions – this network provides a replacement frame. These interframe structures make possible other ways to represent knowledge about facts, analogies, and other information useful in understanding.

A frame system can have slots for agents, tools, side-effects, preconditions, generalized trajectories, just as in the "transitive" verbs of "case grammar" theories, but it has an additional flexibility of representing changes explicitly. Thus in the sentence *John kicked the ball* one cannot think of a purely abstract ball, but must imagine characteristics of a vaguely particular ball which probably has a certain default size, default color, default weight.

The idea of a frame system was implemented in the schematic network of basic frames by the Ukrainian linguist S.A.Zhabotynska. In this framework, linguistic meanings are grounded in the schematic network formed by several

frames which are understood broadly, i.e. as the structures of knowledge akin to "idealized cognitive models":

- Thing Frame
- Action Frame
- Possession Frame
- Taxonomy Frame
- Comparison Frame

The frames are called basic because they demonstrate the most general principles of categorizing and organizing information manifested with language.

The ***Thing concept*** is treated as central in this network. In the Thing Frame, one and the same entity (SOMETHING – SMTH) is characterized along its quantitative, qualitative, existential, locative and temporal parameters. They are represented in the set of propositions where a property is linked to the thing by the inner-space vital relations *is/exist*:

SMTH is THAT MANY/MUCH (quantity);
SMTH is SUCH (quality);
SMTH exists SO (mode of existence);
SMTH is/exist THERE (place of existence);
SMTH is/exists THEN (time of existence).

The other frames are supposed to demonstrate outer-space vital relations between several things, each of which can unfold into the Thing Frame.

In the ***Action Frame***, several things, or participants of an action, assume the argument roles of Agent, Patient, Instrument / Attendant, Recipient, Goal / Cause, and Result / Beneficiary (in Fillmore's terms). The vital relations between them are established via an action performed by Agent, and manifested with the verb *acts* accompanied by prepositions: acts with (Instrument / Attendant), acts upon (Patient / Object), acts towards (Recipient), acts for / because (Goal / Cause) and acts for (Result / Beneficiary).

The ***Possession Frame*** demonstrates the vital relation SMTH-Possessor has SMTH-Possessed. This relation is specified in three sub-frames: Whole has Part (s), Container has Content, and Owner has Owned.

The ***Taxonomy Frame*** exposes the vital relations of categorization: SMTH-Kind is SMTH-Type / Role. "Type" is a permanent taxon of a thing, e.g. *a dog is an animal*; while 'Role" is a temporary taxon of a thing, e.g. *a dog is an animal*; while 'Role" is a temporary taxon of a thing, e.g. *a dog is a hunter*.

The ***Comparison Frame*** manifests the vital relations of identity – SMTH-Referent is (as) SMTH-Correlate; similarity – SMTH-Referent is as SMTH-correlate; and likeness – SMTH-Referent is as if SMTH-Correlate. Likeness is the foundation of metaphor.

Integration of the basic frames produces a highly schematic lattice that is further elaborated in the meanings of linguistic expressions. In Zhabotynska's view this network represents the possible directions in which we reason about things that surround us in the experiental world.

The network of basic frames is used to construe a number of concepts, e.g. CLOTHES (S. Zhabotynska).

The 'Clothes' conceptual domain relates several THING spaces:

SMTH – an article of clothes as a whole;

SMTH – a part or parts of an article of clothes;

SMB – the source, or manufacturer, of clothes;

SMTH – a part or parts of the body where the clothes are worn;

SMTH – the place where the clothes are worn;

SMTH – the time when the clothes are worn;

SMTH – the purpose for which the clothes are worn.

The Thing Frame. (1) SMTH, an article of clothes is SUCH: form – *peaked hat, bow tie* (metaphor) *T–shirt*; length – *mini, maxi, longer-length blazer*; material – *fur coat, silk hat*; price – *four-and-nine / penny* / (4) SMTH, the article of clothes is THERE: the human body – *bodice, body suit*; a body part – *handkerchief, necklace*.

The Possession Frame. (1) SMTH, whole, an article of clothes has SMTH, part /s/: *pantsuit, halter dress, hooded jacket, sleeveless jacket*. (2) SMTH, whole, an article of clothes has THAT MANY SMTH, parts: *trousers, double-breasted jacket, two-buckle shoe/s/*. (3) SMTH, whole, an article of clothes has SUCH SMTH, part/s/: *flat heels, high heels, (metaphor) tailcoat, turtleneck sweater*. (4) SMTH, whole, container has THAT MANY SMTH, parts, content: *one-piecer, two-piecer*.

The Action Frame: (1) SMTH, agent, a part of the article of clothes acts SO / upon X/; function – *suspender/s/, zipper, clasp*. (2) SMB, agent, a manufacturer acts upon / produces SMTH, object, an article of clothes: *Levis jeans, Reebok shoes*. (3) SMB, agent, a person acts upon /wears SMTH, object, an article of clothes; somebody's name – *Wellington boots, Blucher boots*; gender: *girl's dress, men suit*; profession: *miner boots, military suit*. (3) SMTH, object, an article of clothes *is acted upon* / *worn, put on* SO, mode of wearing or putting on: *overcoat, underwear, step-in, wrap-over vest*. (4) SMTH, object, an article of clothes *is acted upon /worn* THERE, place: a geographical region – *panama, Bermuda shorts, Astrakhan cap*; a particular setting – *trench coat, dorm shirt, beach suit*. (5) SMTH, object, an article of clothes *is acted upon / worn* THEN, time: season and weather – *winter dress, sundress*; a special event – *wedding dress, dinner dress*. (6) SMTH, object, an article of clothes *is acted upon for / worn for* SMTH, purpose: specific activity – *polo, boater, surfer*; an undesired thing – *windbreaker, sweatband*; a desired thing – *sweater, sweat*.

Within the domain, each THING entity (SMTH or SMB) can be further specified with regard to its various properties – quantitative, qualitative, locative, temporal, and evaluative, which may surface in the motivator as a signifier of meaning, e.g. *open toe slingbacks* 'shoes with open sides and toes', *girl's skinny leg jeans, baby's night jacket, short-sleeved car coat* etc.

In the latest publications of S. Zhabotynska this frame system has taken shape of network semantics.

Though this frame system is widely used by Ukrainian researchers one should bear in mind its limitations, i.e. it can described only a particular set of conceptual relations. The discussed frame system requires further elaboration to explain the formation of the basic frames it rests on. The notions of THING and ACTION as well as the relations of possession, taxonomy and comparison cannot be treated as primitives but require further elucidation which may change the understanding of the linguistic phenomena they describe.

Challenges to frame and schema theories

Minsky himself agrees that the schemas he proposes are incomplete in many respects. He admits that the representations fail to specify the processes that use them. Besides he only describes properties the structures the structures should exhibit.

Some scholars argue that Minskian frame semantics is a good hypothesis which will sooner or later be turned down. No one has yet sorted out how various frames, or mental structures, are combined (J. Aitchison). It is claimed that in the sentence *Jane's playing cricket in the kitchen* the cricket frame and the kitchen frame would somehow have to be superimposed on one another. Therefore J. Aitchison advises that frames should be divided into two groups which seem to be of different nature: episodic, portraying scenes from life, and conceptual, representing the ideas of love, friendship etc.

Minsky's frames are considered to be very fuzzy, i.e. most of the time he relies on the power of his hypothesis as well as on the reader's power of imagining the cognitive actions he proposes (M.Bednareck).

5.3. Worldview models

The worldview, or the picture of the world, is treated as a collection of concepts which determine the behaviour of an individual. This notion unites the myriad of various conceptual structures. The synonymous term is that of conceptual sphere (Yury Lotman).

The conception of linguistic worldview is attributed to different sources:

- its roots are seen in Aristotle's idea of topoi, i.e. generally known and acceptable judgements which define what is and is not possible, which establish common points of reference in the process of deduction and argumentation underlying logical syllogisms and aiding speakers in their task of convincing listeners;
- it is related to Wilhelm von Humboldt's idea of Weltansicht (1836);
- it traced down to American ethnolinguists Edward Sapir and Benjamin Lee Whorf (E. Bartmiński);
- it is ascribed to physicist H. Hertz, who defined it as a conglomerate of inner images of external objects which serve as basis for logical statements about the behavior of these objects.

Scholars distinguish **different types of worldview**.

The distinction between ***conceptual*** and ***linguistic*** worldviews was drawn by the Soviet philosopher G. Brutyan (1973). He defines the linguistic worldview as all the information about the external and internal world encoded in natural languages. This approach poses a question about the mental relation between the linguistic and conceptual worldviews. There are three options:

- the linguistic worldview is wider than the conceptual one;
- they are identical;
- the conceptual worldview is wider than the linguistic one, an idea shared by the majority of scholars.

The opposition of ***naïve*** and ***scientific*** worldviews was suggested by Yu. Apresyan. In his opinion, the naïve worldview is constructed by people relative to human measure, anthropocentric, but also adapted to social needs and ethnocentric mentality. This conception of linguistic worldview is reflected in the basic, most common variant of national language, namely the colloquial variant. The naïve worldview is emphasized by the phrase *the sun rises and sets* though we know that it doesn't. Similarly, we say *on earth* though due to the scientific explorations we know that Earth is a CONTAINER. It so happens because the naïve worldview is based on sensorimotor stimuli, concrete and practical which suffices to the purpose of everyday communication.

The scientific worldview is subject to strong differentiation with regard to a given discipline. It is represented by a long list of its types: mythological, folklore, religious, philosophical, individual (M.V.Pimenova). Besides one can come across claims about the phraseological worldview representing peculiar characteristics based on historical, often fossilised knowledge, which can only be accessed through etymological investigation. If we stretch the point we may postulate adjectival, prepositional or even punctuational worldviews which sounds strange to say the least.

The solution seems to be offered by J. Bartmiński's who treats the worldview as a language-entrenched interpretation of reality which can be expressed in the form of judgements about the world, people, things or events. What is important Bartmiński insists that it is an interpretation, not a reflection; it is a portrait without claims to fidelity, not a photograph of real objects. The interpretation is a result of subjective perception and conceptualization of reality performed by the speakers of a given language. Hence it is clearly subjective and anthropocentric as well intersubjective.

In Bartmiński's view the linguistic worldview is an aspect of national language, it reflects the speaker's needs, aspirations and mentality. Moreover, Bartmiński offers the procedures of studying the linguistic worldview of a certain phenomenon in the following order:

- structural and etymological basis;
- the study of dictionary definitions;
- word-formation derivatives;
- metaphorical extensions;
- phraseological units and proverbs;
- textual study.

The most obvious, unquestionable basis for investigating linguistic worldview, has so far been the vocabulary, which is a very sensitive index of the culture of a nation. Bartmiński's research on the new vocabulary reveals two crucial factors in this respect: the objective necessity to give names to new inventions such as *computer, pacemaker* etc. and subjective desire to express one's attitudes to reality, frequently, novel attitudes such as *globalization, glocalization* etc. This is especially important for the study of differences between cultures and languages which is reflected in Wierzbicka's key words.

The conceptualization of natural phenomena is also revealed through an analysis of their names offering a perspective from which reality is viewed. It is exemplified by the choice of the words *independence* or *sovereignty*, *Motherland* or *Fatherland*.

The shortest stereotyped texts are considered to be proverbs expressing folk wisdom, general knowledge passed on to individual receivers by the community for pedagogical purposes. In Bartmiński's view they tend to contain universal quantifiers, such as *every, no, always, never*.

A distinct place in research on linguistic worldview is reserved for questionnaires. Open questions about the meanings of words and characteristics of objects are particularly valuable, but they are more difficult to interpret than 'closed' ones, which contain ready-made answers to chose from (Bartmiński).

Challenges to the worldview notion

The term "picture of the world" as a literal translation of the Russian / Ukrainian source term offers a static representation of the surroundings failing to capture the dynamic nature of our consciousness. Therefore the English term 'worldview' seems more appropriate since it implies a dynamic state of the described phenomenon implying a way of thinking about or understanding something.

The multiplicity of the "pictures of the world" implies the existence of a number of consciousnesses which seems intuitively improbable. Therefore it is more feasible to stipulate the existence of several fragments of the worldview.

Especially problematic seems the use of linguistic units distinguishing various types of worldview which is exemplified by the attempts to single out the phraseological picture of the world.

Questions for self-control

1. What is the problem with the definition of a concept?
2. What is the difference between a concept and a category?
3. What are the three approaches to the study of concept? Which of them seems more promising?
4. What types of frames / schemata can be distinguished?
5. How can frames be applied to the study of linguistic phenomena?
6. What types of worldviews are distinguished? Which of them is applicable to linguistic study?

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PART 6

REASONING-BASED COGNITIVE MODELS OF LANGUAGE

The reasoning-based models consider language as a means of reflecting the procedures performed by our mind. The most widely known of those operations are metaphor, metonymy and conceptual integration. Their discussion usually starts with metaphor which was the first to draw the cognitivists' attention. However, we will begin with metonymy since it turns out a simpler operation than metaphor.

6.1. Conceptual metonymy

Traditionally metonymy is defined as a shift in word meaning from the entity it stands to a "contiguous" entity, i.e. associated in experience.

In cognitive linguistics several interpretations of metonymy have been suggested. They include:

- single-domain approach;
- domain matrix;
- domain highlighting within a single domain matrix;
- metonymy as a prototypically structured concept;
- substitution approaches pinning metonymy down to deeper phenomena such as active zone or reference point relations.

The single-domain approach treats metonymy as a process providing mental access to an entity through another entity within a single domain, or frame, i.e. it rests on the stand-for relationship between elements (Z. Kövecses).

In more technical terms, metonymy is defined as a cognitive process in which one conceptual entity – *the vehicle* – provides mental access to another conceptual entity – *the target* – within the same domain, or frame (idealized cognitive model).

Within a frame we usually relate those elements which have a well-established, entrenched conceptual relationship to each other. Accordingly, in the example *The ham sandwich spilled beer all over himself* the *ham sandwich* is a vehicle while the person eating it is a target. Similarly, in the sentence *Washington denied the charges Washington* is a vehicle while *American government* is the target. In the sentence *Nixon bombed Hanoi, Nixon* is a vehicle while the *US Air Force* is the target. Reading these utterances we know that the speaker talking about *the ham sandwich* really means the person eating it; speaking about the city of Washington a person means American government while the speaker referring to the former president Nixon is really talking about the U.S Air Force (Kövecses 2005).

In the given examples, we are enabled to use a particular element for another due to particular frames: the restaurant frame in case of the metonymy of food for person; government frame in the substitution of place for institution; control frame in the case of substitution of controller for the controlled. In other words, an

element of the frame can stand for its other elements. For instance, the restaurant frame consists of a variety of elements, including the person who goes to the restaurant, the restaurant itself, the food eaten, the waiter and so on. Given this, the food eaten can be used for the person eating it.

Since the notion of domain is found to be vague this single-domain approach has been the object of much criticism, which was taken into account by W.Croft who argues that a metonymic mapping occurs within **one domain matrix**, i.e. across domains within a domain matrix, not across domains or domain matrices. Croft illustrates this approach to metonymy by two examples with the proper name *Proust*, cf. *Proust spent most of his time in bed* and *Proust is tough to read.* The works of Proust are part of the concept of [PROUST]. However it is less central than the fact that Proust was a person. The domain matrix of an encyclopedic characterization of [PROUST] includes the domain of creative activity. Since Proust's claim to fame is that he is a writer, and the work produced is a salient element in the domain of creative activity, the metonymic shift is quite natural and quite productive. The metonymic shift also involves a shift of domains within the domain matrix for Proust. For some scholars the notion of domain matrix appears to be a very general one that does not restrict the set of possible metonymies very much (Y. Perisman, D. Geeraerts).

The domain highlighting approach argues that metonymy makes primary a domain that is secondary in the literal meaning. This process is supplemented by shift of reference. The importance of highlighting is demonstrated by the following two examples: *This book is heavy* and *This book is a history of Iraq*. The concept [BOOK] is profiled in two primary domains: that of physical objects and of meaning or semantic object. In the first example, the physical object domain of book is highlighted by virtue of the requirements of the predicate *heavy* while in the second example, the semantic content of the domain of book is highlighted again due to the requirements of the predicate *be a history of Iraq*. It is not an example of metonymy in the usual sense of that term because the elements profiled in each domain are highly intrinsic and no reference is made to external entities.

Metonymy as **a prototypically structured concept** is represented by varying degrees of "metonymicity" (Y. Perisman, D. Geeraerts). In this framework, the prototypical core of contiguity in the spatial and material domains is constituted by SPATIAL PART and WHOLE. This core can be extended into two directions: vertical which takes it via container and contained as well as location and located to entity and adjacent entity. The horizontal dimension takes it into the direction of material and object. The combination of these two dimensions is believed to cover all the metonymical patterns which include:

- spatial part–whole which is situated at the core of the category;
- container–contained;
- location–located;
- entity and adjacent entity which includes piece of clothing–person and piece of clothing–body part; material–object.

The ***part–whole*** pattern has two directions, i.e. from part to whole, e.g. *We need some good heads on the project*, and from whole to part, e.g. *George Bush is the president of America*.

The ***container–contained*** pattern closely linked to the part-whole relations also has two directions: container for contained, e.g. *I drank a glass too many*, and contained for container, e.g. *The milk tipped over*.

The ***location for located*** pattern has two subtypes: location for located, e.g. *Washington is negotiating with Moscow*, and located for locations, e.g. *Billiards for room where billiards is played*.

The ***entity and adjacent entity*** relation covers piece of clothing – person, e.g. *piece of clothing – body part*.

The ***material and object*** pattern, often subsumed under PART and WHOLE relations, has two subtypes which include object for material, e.g. *There was cat all over the road*, and material for object, e.g. *Brass for brass instrument*.

The contiguity in the temporal domain is represented by the relations of temporal part and whole, e.g. *morning – tomorrow*; time and entity, e.g. *9 – 11 will never be forgotten.*

The contiguity in actions, events and processes is represented by the relations of subevent and complex event, e.g. *I have to grade hundreds of paper*, where grading papers does not simply involve writing down marks; action / event / process and state, e.g. *Mary speaks Spanish, John smokes, or Harry drinks*, where the activities of speaking, smoking and drinking metonymically stand for the state of which they are a part; action / event / process and participant, e.g. *to butcher the cow, to author a book;* cause and effect, e.g. *unlock the prisons*.

The substitution approaches argue that many cognitive metonymies are no longer metonymical in the usual sense. Therefore metonymy is replaced by other phenomena which include reference point and active zone.

The reference point phenomenon (for more detailed treatment see 3.7) has been applied to the explanation of metonymy (Langacker 1999) in this way.

According to Langacker, we are not confused by changes in reference because metonymy is basically a reference point phenomenon, i.e. the entity that is normally designated by a metonymic expression serves as a reference point affording mental access to the desired target (the entity actually being referred to), e.g. *She bought Lakoff and Johnson, used and in paper, for just 1.50*.

Within this approach metonymy allows an efficient reconciliation of two conflicting factors: the need to be accurate, i.e. of being sure that the addressee's attention is directed to the intended target; and our natural inclination to think and talk explicitly about those entities that have the greatest cognitive salience for us.

By virtue of our reference point ability, a well chosen metonymic expression lets us mention one entity that is salient and easily coded, and thereby evoke – essentially automatically – a target that is either of lesser interest or harder to name,

Langacker distinguishes the following principles of cognitive salience important for the formation of metonymic expressions human > non-human, whole > part, concrete > abstract, visible > non-visible. These preferences are

demonstrated by the example *The coach is going to put some fresh legs in the game* with a coach selecting some new players in spite of their non-visible status and *That car doesn't know where he's going* showing the importance of visibility: the car's bigger salience eventually overrides the human factor.

A special type of metonymy is based on the **active zone** phenomenon, involving the connection between relational expressions and their nominal arguments.

An entity's active zone is defined as that aspect which most directly and crucially participates in the relationship, e.g. *The cigarette in her mouth was unlit*. In this example the noun *cigarette* specifies the trajector of *in*, and the nominal *her mouth* specifies its landmark. Thus, if *in* has the spatial meaning the expected import of the sentence is that the entire cigarette was inside the cavity identified as her mouth we do not take it as meaning that the cigarette, as an undifferentiated whole, was inside the mouth. Instead we interpret it as meaning that a particular portion of the cigarette (one end) was contained in a particular portion of the mouth (a segment of the lips). Those portions constitute the active zones of the cigarette and of the mouth with respect to their relationship. There is in each case a discrepancy between the active zone and the nominal profile. One end of the cigarette is not what we take to be the referent (profile) of the cigarette. Nor is part of the lips what we identify as the referent of mouth. The entities we explicitly mention with the subject and object nominals are not the ones most directly and crucially involved in the profiled relationship.

The profile / active zone discrepancy is quite typical of subject and object The verbs in *the boy blinked / waved / coughed /meditated / yawned / stretched / smile* designate processes involving different facets of a person, yet the subject nominal refers to this person as an undifferentiated whole. The verb like *hit* is quite vague as to which portion of the trajector and the landmark participate directly. Any part of landmark can be affected. We can overcome this indeterminacy by adding a prepositional phrase to specify the active zone, e.g. *She hit me in the arm / stomach / mouth / back of leg / knee / neck*.

The next question important for the study of metonymy is its **location** in particular parts of a sentence. The standard view is that metonymy represents an ambiguity of the noun, i.e. the meaning of the noun phrase being shifted from its basic meaning. However, Langacker argues that the ambiguity is in the predicate, citing the following example *We all heard the trumpet*. The traditional analysis is that the noun symbolizes "sound of trumpet". Langacker insists that we should treat the noun phrase as really symbolizing the entities they appear to be symbolizing, namely, the trumpet. While the reference to the sound is a characteristic of the predicate, so that *hear* can profile "hear the sound of noisemaking object". Croft claims that metonymy occurs by virtue of the collocation of the predicate and the noun and concludes that the correct literal or figurative interpretations of the elements of sentences are not decidable from the elements of the sentence by themselves. The domain in which a predication is interpreted can be determined by context which seems to be a further prospect of metonymy study from the cognitive perspective.

6.2. Conceptual metaphor

Metaphor has become an important problem for natural language processing because it is characteristic to all areas of human activity (from poetic to ordinary and to scientific) and, thus, to all types of discourse.

The main cognitive function of conceptual metaphor is to provide understanding for a more abstract concept (target domain) through a more concrete one (the source domain).

The role it plays in human reasoning has been confirmed in psychological experiments and its ubiquity in language has been established in a number of corpus studies. The metaphor is not just a matter of language, but of thought and reason. The mapping is primary, the language is secondary. This cognitive approach differs from the Aristotelian one which claimed that metaphor concerned the unusual use of words, i.e. metaphor was in words. For Lakoff metaphor is in thought and concerns everyday expressions. It is primarily a way in which you understand the world in terms of other domains that you have.

6.2.1. Standard theory of conceptual metaphor

George Lakoff explains his attention to work on metaphor by a mere accident. In 1978 he was teaching an undergraduate seminar to five students. One day when they were to discuss a paper on metaphor, one of the women came in late and she said she had a metaphor problem with her boyfriend. She said that on the way to the seminar her boyfriend said that their relationship hit a dead-end street and she didn't know what that meant. And those present explained to her that it meant that they couldn't keep going the way they had been going. They had to turn back. At that point, Lakoff realized that English had many expressions for understanding love as a journey which has become his favourite example.

Technically, the metaphor is understood as a mapping (projection) from a source domain, e.g. *journey*, to a target domain, e.g. *love* in *LIFE IS JOURNEY* metaphor. Johnson and Lakoff adopted a strategy for naming such mapping, using mnemonics which has the form TARGET-DOMAIN IS SOURCE-DOMAIN. Accordingly, the LOVE IS A JOURNEY metaphor can be represented in the following way (Z.Kövecses 2005):

Source: *journey*		**Target: *love***
Travelers	→	lovers
Vehicle	→	love relationship
Destination	→	purpose of relationship
Distance covered	→	progress made in the relationship
Obstacles along the way	→	difficulties encountered in the relationship

Lakoff treats the LOVE-AS-JOURNEY mapping as a set of ontological correspondences that characterize epistemic relations by projecting knowledge

about journeys onto knowledge above love. Such correspondences permit us to reason about love using the knowledge we use to reason about journeys.

Since it is the mappings that are primary Lakoff reserves the term metaphor for the mappings, rather than for linguistic expressions. Consequently, when referring to the LOVE IS A JOURNEY metaphor, we mean the set of correspondences. For example, in the statement *We're driving in the fast lane on the freeway of love* the traveling knowledge called upon is this: when you drive in the fast lane, you go a long way in a short time and it can be exciting and dangerous. The general metaphorical mapping projects this knowledge about driving into knowledge about love relationship. The danger may be to the vehicle (the relationship may not last) or the passengers (the lovers may be hurt emotionally). The excitement of the love journey is sexual.

Alongside the LOVE IS A JOURNEY metaphor Kövecses distinguishes the metaphor LIFE IS A JOURNEY, reflected in the following phrases: *someone has no direction in life*, *they have to go through a lot*, *they will go far*, *some people carry a heavy baggage*, *they are at a crossroads, they look back and think it was a bumpy road, they are determined to reach their goals* etc.

The concept of life is grasped in terms of the concept of journey.

The LIFE IS A JOURNEY metaphor is based on the following correspondences:

Source: *journey*		**Target: *life***
Traveler	→	person leading a life
Journey / motion (towards a destination)	→	leading a life with a purpose
Destination	→	purpose of life
Obstacles (in the way of motion)	→	difficulties (in life)
Distance covered	→	progress made
Path/way of the journey	→	the manner / way of living;
Choices about the path	→	choices in life

As can be seen, particular elements of the journey frame correspond to particular elements of the life frame, or domain. The concept to be comprehended is given first, while the concept used for comprehension is given second. Moreover, the metaphors LIFE IS A JOURNEY and LOVE IS A JOURNEY are similar in structure since love seems part of everybody's period of life, which gives grounds to distinguish the hierarchical metaphor LIFE → [LOVE as part of LIFE] → JOURNEY while JOURNEY, in its turn, is related to the PATH image schema, representing motion. Consequently, this metaphor acquires the following form LIFE → [LOVE as part of LIFE] → JOURNEY → PATH schema.

In general, mappings are performed at the superordinate rather than the basic level. Therefore it is the superordinate category of VEHICLE not the CAR basic level category that is the general mapping. A mapping at the superordinate level maximizes the possibility of projecting rich conceptual structures in the source domain onto the target domain, since it permits many basic level instances, each of which is information rich. Hence one does not tend to find mappings like A LOVE RELATIONSHIP IS A CAR or A LOVE RELATIONSHIP IS A BOAT.

Mappings are not treated as processes, or algorythms that mechanically take source domain inputs and produce target domains. Each mapping is seen as a fixed pattern of ontological correspondences across domains that may, or may not, be applied to source domain knowledge structure or a source domain lexical item.

The target and the source are often characterized by similar structural relations. A source domain may apply to several targets (the *scope* of the source) and a target may attach to several sources (*range* of the target).

As for the scope of source, the source domain of fire / heat is commonly used to comprehend target concepts such as love, anger, activities, conflict, life. As for the range of the target, love, for example, has over twenty different domains as its source, including journey, war, fire, game.

The classification of source domains is based on the orientation of an individual: body, bodily orientation, visual orientation.

The source is more physical and the target is a more abstract kind of domain.

The most specific bodily experience is connected with source domains of WARMTH, HEAT of warmth underlies the metaphor AFFECTION IS WARMTH. We experience such embodied correlation very early in life. This kind of warmth is produced by hugging or being close to a caretaker.

Heat is produced after hard work, sawing or chopping wood. Hence the metaphor INTENSITY IS HEAT. Since intensity is an aspect of many concepts, the source domain of heat underlies many concepts, such as anger, love, lust, work, argument (Kövecses 2005).

ANGER IS A HOT FLUID IN A CONTAINER is reflected in the metaphoric linguistic expressions as *boil with anger, simmer down, seethe with anger*.

Besides love and anger, many of the most basic concepts in our conceptual system are also normally comprehended via metaphor – concepts like time, quantity, state, action, cause, purpose, means, modality, and even the concept of a category.

Classical categories are understood metaphorically in terms of bounded regions, or containers. Thus, something can be in or out of a category, it can be put into a category or removed from a category. The logic of classical categories is the logic of containers.

The logical properties of classical categories can be seen as following from the topological properties of containers to categories. As long as the topological properties of containers are preserved by the mapping, the result will be true.

Socrates is a man.

All men are mortal.

Therefore, Socrates is mortal.

Can be represented in the following form:

If X is in category A and category A is in category B, then X is in category B.

The concept of quantities is supposed to involve two metaphors. The first is the well-known MORE IS UP, LESS IS DOWN which is shown by a myriad of expressions like *prices rise, stocks skyrocket, the markets plummet*.

The second is LINEAR SCALES ARE PATHS, exemplified by the expressions *John is far more intelligent than Bill*. *John's intelligence goes way beyond Bill's*. *John is way ahead of Bill in intelligence*.

This metaphor maps the starting point of the path onto the bottom of the scale and maps distance traveled onto quantity in general. In this case, the logic of paths maps onto the logic of linear scale.

The problem with metaphor source and target is which of them participates in metaphors. It means that only select aspects of concepts are involved in metaphors, i.e. only certain aspects of the source domain are utilized and certain aspects of the target domain are highlighted.

In the metaphor ARGUMENT / THEORY IS A BUILDING three aspects of building are utilized: the process of building (build a strong argument), the physical structure of a building (framework for a solid argument, groundwork), the issue of the strength of the building (solid argument, solid facts) (Lakoff, Johnson 1980). Correspondingly, only three aspects of argument are focused on: the construction of an argument or theory, its structure, and its strength. However many other parts of buildings are not utilized: windows, doors, hallways, chimneys, roofs, tenants etc (Kövecses 2005).

The most appropriate method of structuring the source domain is to use image schemas which are mapped onto the target domain. Image schemas serve as the basis for the formation of certain concepts and they determine certain metaphoric extensions. The metaphor THEORY IS A BUILDING (not house) is based on the image schema VERTICALITY which underlies the process of building which rests on upward movement. Therefore the word *building* is preferred to *house* which emphasizes the CONTAINER schema. The issue of strength is also equal to the VERTICALITY schema which is used for measuring strength, i.e. strong tactile perception.

The application of image schemas in metaphor theory is guided by the **invariance principle** – metaphorical mappings preserve the cognitive topology, or image schematic structure, of the source domain, in a way consistent with the inherent structure of the target domain (G. Lakoff). What the Invariance Principle does is guarantee that, for container schema, interiors will be mapped onto interiors, exteriors onto exteriors, and boundaries onto boundaries; for path-schema, sources will be mapped onto sources, goals onto goals, trajectories onto trajectories, and so on.

The image-schematic structure of the target domain cannot be violated, i.e. we cannot find cases where a source domain interior is mapped onto a target domain exterior, or where a source domain exterior is mapped onto a target domain path.

According to the Invariance Principle one cannot say blithely that spatial expressions can be used to speak of time without specifying details, as though there were only one correspondence.

Classification of metaphors. Metaphors are divided into image, orientational, ontological, or physical, and structural (Lakoff, Johnson).

The image metaphor consists in image mapping, i.e. when an image of one object maps on the image of another object, e.g. image of a plant on the image of a person, e.g. *That time of year thou mayst in me behold When yellow leaves, or none, or few do hang Upon those boughs which shake against the cold* (Shakespeare. Sonnet 73). In this stanza boughs of a tree are like arms of a person. It is image mapping here, and the image is of an old man being cold and shaking against the cold. So given that people are plants, you have an image of a tree mapped onto an image of a person with the arms of boughs and the shaking of a man's arms.

Orientational metaphors are mappings which organize a whole system of concepts with respect to one another within the framework of bodily schemas. Examples include HAPPY IS UP / SAD IS DOWN, e.g. *I'm feeling up. My spirits rose. He's really low these days*.

Ontological metaphors enable us to view immaterial phenomena as physical objects. Three types of ontological metaphors are distinguished.

Entity metaphors are represented by the mapping INFLATION IS AN ENTITY, instantiated in the expressions such as *inflation makes me sick*, *if there's much more inflation, we'll never survive*.

Container metaphors represent the second type of ontological metaphors exemplified by STATES ARE CONTAINERS, e.g. *He's in love, we're out of trouble now.*

Personifications are treated as the third type of ontological metaphors. A case in point is the conceptual metaphor FACTS ARE PERSONS, instantiated in the expression such as *This fact argues against the standard theories*.

Structural metaphors represent a more complex type of mapping. They serve to organize or "structure" a certain concept in terms of a different concept, e.g. TIME IS MONEY and ARGUMENT IS WAR.

6.2.2. Extensions of standard theory

The modifications of the standard metaphor theory take place along the lines of singling out primary metaphors, contextual, corpus and discourse studies.

Primary metaphors resolve a major problem of conceptual metaphor theory, i.e. the way they experientally grounded, since many conceptual metaphors do not suggest straightforward experiental correlations (Grady). It is thought that the well known metaphors LOVE IS A JOURNEY and THEORIES ARE BUILDINGS do not have the same kind of correlation in experience as seen in MORE IS UP. A related problem with the conceptual metaphor theory is that it does not explain why certain source-to-target domain mappings are not likely to occur. For instance, the conceptual metaphor THEORIES ARE BUILDINGS motivates many meaningful linguistic expressions such as *The theory needs to be buttressed* or *The foundation for your theory is shaky*. But some aspects of buildings are not mapped onto the domain of theories which is one reason why it sounds odd to say *The theory has no windows*. An interesting solution to these

problems suggests that conceptual metaphors are not the most basic at which metaphorical mappings exist in human thought and experience. Grady argues that the strong correlation in everyday embodied experience leads to the creation of primitive or primary metaphors. Lakoff and Johnson (1999) suggest the following list of primary metaphors:

INTIMACY IS CLOSENESS, e.g. *We have a close relationship*;

DIFFICULTIES ARE BURDENS, e.g. *She's weighed down by responsibility*;

AFFECTION IS WARMTH, e.g. *They greeted me warmly*;

IMPORTANT IS BIG, e.g. *Tomorrow is a big day*;

MORE IS UP, e.g. *Prices are high*;

SIMILARITY IS CLOSENESS, e.g. *Those colors aren't the same but they are close*;

ORGANIZATION IS PHYSICAL STRUCTURE, e.g. *How do pieces of the theory fit togethe*r;

HELP IS SUPPORT, e.g. *Support your local charities*;

TIME IS MOTION, e.g. *Time flies*;

STATES ARE LOCATIONS, e.g. *I'm close to being in depression*;

CHANGE IS MOTION, e.g. *My car has gone from bad to worse*;

PURPOSES ARE DESTINATIONS, e.g. *He'll be successful, but isn't there yet*;

CAUSES ARE PHYSICAL FORCES, e.g. *They push the bill through Congress*;

KNOWING IS SEEING, e.g. *I see what you mean*;

INTERRELATED IS INTERWOVEN, e.g. *I've never been able to grasp transfinite numbers*.

These metaphorical correlations are said to arise from our embodied functioning in the world. In each case, the source domain of the metaphor comes from the body's sensorimotor system. A primitive is a metaphorical mapping for which there is an independent and direct experiential basis and independent linguistic evidence. In this vein, a compound, or complex metaphor, is a self-consistent metaphorical complex composed of more than one primitive. Complex metaphors are created of blending primary metaphors and thereby fitting together small metaphorical pieces into larger metaphorical wholes.

For instance, R.W.Gibbs suggests that the primitive metaphors PERSISTING IS REMAINING ERECT, ORGANISATION IS PHYSICAL STRUCTURE, INERRELATED IS INTERWOVEN can be combined in different ways to give rise to compound metaphors that have traditionally been seen as conceptual metaphors. The combination of these primitives allows for the metaphorical concepts without gaps. Thus, combining PERSISTING IS REMAINING ERECT with ORGANISATION IS PHYSICAL STRUCTURE provides for the compound THEORIES ARE BUILDINGS that nicely motivates the metaphorical inferences that those theories need support and collapse without any mappings such as 'those theories need windows'. In a similar way, the combination of ORGANISATION IS PHYSICAL STRUCTURE and

INTERRELATED IS INTERWOVEN gives rise to a different metaphorical compound for theories, namely THEORIES ARE FABRICS. The compound metaphor gives rise to the reasonable inferences that theories can unravel or may be woven together without generating less likely entailments such as 'those theories are colorful' in the way that some fabrics have color.

The primary metaphors seem to require a further link with the sensorimotor experience which is best achieved with the the help of orientational layout of the image schemas divided into five groups: BODY, related to body movements; bodily, perceptual, spatial and dynamic divided into kinetic and those of force.

The BODY schema underlies the primary metaphor INTERRELATED IS INTERWOVEN related to the manual movements; the perceptual schemas determine the primary KNOWING IS SEEING metaphors while the image schema OBJECT gives rise to the primary metaphor ORGANIZATION IS PHYSICAL STRUCTURE.

The bodily schema of FAR – NEAR underlies the primary metaphors INTIMACY IS CLOSENESS, AFFECTION IS WARMTH, SIMILARITY IS CLOSENESS.

The dynamic verticality schema conditions the primary metaphors IMPORTANT IS BIG, MORE IS UP, HELP IS SUPPORT.

The image schema PATH underlies the primary metaphors TIME IS MOTION, STATES ARE LOCATIONS, CHANGE IS MOTION, PURPOSES ARE DESTINATIONS, INTERRELATED IS INTERWOVEN pinged on different components of the PATH image schema.

The image schemas for force underlie the primary metaphor CAUSES ARE PHYSICAL FORCES.

The corpus study of metaphor reveals that the striking feature of conceptual metaphor is non-productivity. The same words with the same figurative meaning are repeated over and over (D.R.Sanford). In this vein, metaphorical conventionalization is related to frequency effect with the exemplar-based model best capturing the mechanism whereby metaphorical schemata are formed as a result of repetition. According to this view, speakers as they engage in language in any mode, encounter linguistic metaphors which accumulate and form exemplar representations and are stored on the basis of similarity with other items. As speakers make connection over exemplar, schemata are formed. In this way three types of schemata are singled out:

- schemata in which humans are equated to animals, e.g. *He was like a little Australian sheepdog running about; The horse obeys; She's a dog. Human nature is like a horse. Driven by God or the Devil. Men Are Dogs. She is a fox*. The result of this cross-domain mapping is PEOPLE ARE ANIMALS. It underlies the tendency to attribute negative features to men via animal terminology, e.g. *boor, swine, pig, vermin*;

- category of items referring to people, e.g. *she is hot; who could doubt a sweet little lady; that surgeon is a butcher*.

According to this approach storage and processing of metaphor have an effect on frequency while the entrenchment of the metaphorical schemata has an effect on their usage and their frequency.

Computational research focuses on metaphor automatic identification. In the recent years, the problem of metaphor modeling has been steadily gaining interest, with a growing number of approaches exploiting statistical techniques. Compared to more traditional approaches based on hand-coded knowledge, these more recent methods tend to have a wider coverage, as well as be more efficient, accurate and robust. However, even the statistical metaphor processing approaches so far often focus on a limited domain or a subset of phenomena. At the same time, recent work on computational lexical semantics and lexical acquisition techniques, application of methods applying machine learning to open-domain semantic tasks, open many new avenues for creation of large-scale robust tools for recognition and interpretation of metaphor.

Contextual approach. Answering varying criticism concerning the standard theory of conceptual metaphor (Semino, Steen, Stefanowitsch) Z. Kövecses turned his attention to the context in which metaphorical conceptualization takes place. He distinguishes two contextual factors that commonly produce unconventional and novel metaphors:

- global context, i.e. the contextual factors that affect all members of a language community when they conceptualize something metaphorically;
- local context, i.e. the immediate contextual factors that apply to particular conceptualizers in specific situations.

The global context includes a number of factors: physical environment, social factors, cultural context as well as differential memory, i.e. the major or minor events that occurred in the past of a society, e.g. Hungarians primarily use the LIFE IS WAR and LIFE IS COMPROMISE metaphors whereas the Americans most commonly employ the LIFE IS A PRECIOUS POSSESSION and LIFE IS A GAME metaphors. Americans, for example, are often said to be given to action, as opposed to passivity. The claim is that Americans have the game and sports metaphors for a more extensive range of target concepts than other nations.

Local contexts concern the immediate physical setting, the knowledge about the main entities in discourse, the immediate cultural context, the immediate social setting, and the immediate linguistic context.

The influence of the physical setting is reflected in a statement by an American journalist in the aftermath of hurricane Katrina:

The 2005 hurricane capsized Domino's life, though he's loath to confess any inconvenience or misery outside of missing his social circle (USA Today). The metaphorical statement '*the 2005 hurricane capsized Domino's life'* is based on the general metaphor LIFE IS A JOURNEY and its more specific version LIFE IS A SEA JOURNEY. Not being a conventional manifestation of any of those metaphors the verb *capsize* is selected by the journalist as a result of the visible

consequences of the hurricane as a devastating physical event. The physical setting triggers the extension of an existing conventional conceptual metaphor.

6.2.3. Conceptual metaphor in discourse

Conceptual metaphor has widely been studied in a number of discourses: political with its gendered suptype, media, religious, poetic etc.

Metaphor in political discourse. It is argued that the conceptual metaphor POLITICS IS RELIGION underlies much of the Labour ideology. The New Labour political discourse is strongly characterized by the use of moral terms within religious metaphors, thus framing political issues using the notion of morality. Voting for the Labour party is framed as a matter of ethics, since it is portrayed as the "right" decision (J. Charteris-Black).

The study of manifestos of two British major parties – Labour and Conservative – reveals five productive source domains which include conflict, buildings, plant, journey, and religion. The data prove that there are no major differences in the types of conceptual metaphors used by both parties. However, there are differences in how they are employed linguistically in order to construct an argument. The analysis further shows diachronic shifts in metaphor preferences. For example, the use of conflict metaphors is more common than building metaphors.

It has also been found that the presidential speeches from George Washington to Bill Clinton rest on the main source domains represented by conflict, journey, building, light and fire metaphors, physical environment, religion, and body parts. The comparison between the British and the American data reveals that some domains such as conflict, journey, and building are relevant to both, conflict being the most common one, whereas other source domains vary in importance.

Metaphor in gendered political discourse. The study concerns the investigation of the extent to which women politicians differ from males in their use of conceptual metaphors. It is found that both men and women use metaphors in a similar manner and to a similar extent in political discourse unlike for example, the workplace which shows that men and women use different types of metaphorical strategies (Holmes 2005, and Holmes and Stubbe 2003).

More succint study concerns the camparison of British females and males taking part in the House of Commons parliamentary debates with respect to the source domains of *journeys, light and dark, health*, and *plants* (J. Charteris-Black). They are scrutinised in terms of a number of associated keywords, such as *bright, dark, gloom, light, shade* and *shadow* for *light and dark*, and each use of such a keyword is coded as either metaphorical or not by analysing transcripts of Parliamentary debates.

The results reveal that differences in metaphor use are found in terms of both gender and years of experience in parliamentary debate:

- the least experienced females produced the smallest number of metaphors, followed by more experienced females and less experienced males (these two producing roughly equal counts);

- more experienced males produced the highest number of metaphors.

The sample also shows considerable variation between individual speakers. For instance, one of the experienced female MPs uses 6% of the total metaphors, while the other experienced female MP uses 27%, whereas the two less experienced female MPs produce 12% and 1%.

Given such distinctions, one cannot rule out ideolectal variation as being the main cause of the differences observed, instead of gender-related distinctions (Barlow 2010). It also appears that the most notable difference across the genders with regard to metaphor source domains comes from metaphors to do with *light and dark*. Male MPs strongly prefer *light and dark* metaphors to women MPs, though there is no stipulated explanation for why this might be the case.

The study of rhetorical purposes for which the various metaphors are used within each of the three Aristotelian rhetorical functions, ETHOS (to establish the speaker as ethical), PATHOS (to heighten the emotional impact), and LOGOS (to explain a particular policy) reveals that women's metaphors fall mostly under ETHOS, whereas those produced by the males are more evenly spread throughout the three categories (J. Charteris-Black).

These results are not easy to interpret: the more limited use of metaphors by female MPs may be attributed to the association of metaphors with a masculine rhetorical style, and hence one which females may wish to avoid in order to distance themselves from male politicians. In other words, females may adopt a certain style in response to an already established norm (before the days when females were allowed in Parliamentary debates), rather than as a marker of their own identity or style. It is argued that metaphors should not only be analyzed cognitively, but also pragmatically because they are powerful tools of persuasion in discourse. In this regard, metaphors can influence political and social judgments as well as develop new ideologies, thus shaping new ways of communicating.

In **media discourse** conflict metaphors are frequently used in sports reports because they convey social competitiveness, with conflict the most common source domain in English sports reports. Financial reports employ animate metaphors to predict events with certainty, whereas they use inanimate metaphors to comment on less predictable events.

In **religious discourse** metaphors are not always clear to identify – the same sentence may be interpreted literally or metaphorically according to the beliefs of an individual. Extensive evidence of biblical metaphors is provided for by both the Old and the New Testament, although more are attested in the Old Testament. The most productive of the source domains are animals, light, plants, food, and drink. The Old Testament focuses on five source domains including building, journey, conflict, weather, and fire. The linguistic and conceptual differences between the Old and the New Testament consist in more negative values (revenge, anger,

destruction) in the Old Testament and more positive ones (faith, understanding, forgiveness) emphasized in the New Testament. The exploration of metaphors in the Koran shows that the most productive source domains are journey, weather, fire and light, and plants with food and drink, animal, buildings, and conflict being non-productive. Less metaphorical language is found in the translated version of the Koran than in the Bible. However, some metaphorical expressions are used only in the Koran, thus reflecting differences between the religious doctrines.

Metaphor in poetry. In Lakoff's view, poetic metaphor is not original since it uses the ordinary things. However what is original is the way it puts the metaphors together:

Two roads diverged in a wood,
And I took the one less traveled by,
And that has made all the difference.

Two roads diverged in a wood is a metaphor that life is a journey. It is based on what is called the event structure metaphor which is a composite of other primary metaphors that include STATES ARE LOCATIONS understood as bounded regions in space, changes are movements from state to another, and then a purpose.

The *wood*, signifying that you cannot see ahead, is related to the metaphors FUTURE IS AHEAD and PAST IS BEHIND. Hence when the roads diverged the traveler could not see where they were going. He didn't know where he would wind up, but he took the one that other people didn't take, anyway. And that was a good thing. Here he uses another primary metaphor SEEING IS KNOWING and the FUTURE IS AHEAD.

Metaphors were also applied to interpreting Pharaoh's **Dream** (Lakoff 1993).

In his dream, Pharaoh is standing on the river bank, when seven fat cows come out of the river, followed by seven lean cows that eat the seven fat ones and still remain lean. Then Pharaoh dreams again. This time he sees seven „full and good" ears of corn growing, and then seven withered ears growing after them. The withered ears devour the good ears. Joseph interprets the two dreams as a single dream. The seven fat cows and full ears are good years and the seven lean cows and withered ears are famine years that follow the good years. The famine years "devour" what the good years produce.

According to Lakoff this interpretation makes sense to us because of a collection of conceptual metaphors in our conceptual system.

The first metaphor is TIMES ARE MOVING ENTITIES. In this metaphor, there is an observer defining the present time standing, with the future in front and the past behind. Future times move toward him from the front; past times are in the rear moving away, e.g. *The time for action is here. The time for waiting has passed. The revolution is coming. Time flies. Time flows by*. This metaphor characterizes the "flow"' of time, and a river is an appropriate special case of something that flows and that extends as far as the eye can see. Hence, a river is a

common metaphor for the flow of time. The cows emerging from the river are individual entities (blocks of time – in this case, years) emerging from the flow of time and moving past the observer; the ears of corn are also entities that come into the scene.

The second metaphor is ACHIEVING A PURPOSE IS EATING, where being fat indicates success and being lean indicates failure, e.g. *The league leaders fattened up on the last place team. He's starved for a win. I can taste victory. The sweet smell of success*. *He enjoyed the fruits of his labor. He's got a lot on his plate.* This metaphor is combined with the most common of metonymies: A PART STANDS FOR THE WHOLE, as in: *We need a strong arm in right field. We've got a good glove a third base. Look at his new wheels*. Since cows and corn were typical of meat and grain eaten, each single cow stands for all the cows raised in a year and each ear of corn for all the corn grown in a year. The fat cows and corn stand for food in general, which in turn metaphorically symbolizes success via ACHIEVING A PURPOSE IS EATING. The fat cows and corn also symbolize years via TIME IS A MOVING OBJECT. Thus, they jointly symbolize good years.

The final metaphor is RESOURCES ARE FOOD, where using up resources is eating food. Examples include: *I've got a gas guzzler. They've gobbled up all the wood available to the building trades*. The devouring of the good years by the famine years is interpreted as indicating that all the surplus resources of the good years will be used up by the famine years. The interpretation of both dreams is a composition of the same four parts: three conventional metaphors and one metonymy. The cow dream and the corn dream are both special cases of a single more general dream, where cows and corn are kinds of food.

The given analysis begins where Joseph's dream interpretation ends. This is analysis of the interpretation, not of the dream. It shows that a given analysis of a dream makes sense to us due to metaphors and metonymies in our everyday conceptual system which provides the link between the dream content and the interpretation.

6.2.4. Metaphor and metonymy

It is believed that metonymic extensions involve merely one domain, while metaphors involve two domains (Lakoff, Turner 1989).

The notion of domain matrix which represents "the combination of domains simultaneously presupposed by a concept such as [human being]" (Croft 1993). According to Croft, metaphorical mappings connect two independent domains which do not form a domain matrix for the concepts involved whereas metonymic extensions are confined to a single domain matrix. For example, the metonymy *Dickens is interesting* involves a shift of domains within the domain matrix from the domain (PERSONS ENGAGED IN) CEATIVE ACTIVITY to the domain RESULTS OF CREATIVE ACTIVITY, i.e. Dickens' works. In this case, the hierarchy of domains is changed. What was formerly a primary domain

(CREATIVE ACTIVITY) is backgrounded, while the domain RESULTS OF CREATIVE ACTIVITY achieves the status of a primary domain.

Metaphors, as opposed to metonymies, typically trigger the construction of ad hoc categories (Haser). The source concepts of metaphors are seen as prototypical members of a larger category. The interpretation of typical metonymies depends on speakers' grasp of firmly established, or at least presupposed, relations between concepts. Metaphor creates relations between its objects. In case of metonymies as opposed to metaphors, source and target senses are inseparable in principle.

The interaction of metaphor and metonymy in the target domain **is treated as metaphtonymy**. The term belongs to Louis Goossens (1990). He distinguishes metaphor from metaphnonymy in the examples where sound hangs together with a human activity that can naturally co-occur with linguistic action. For example, in the utterance "Oh dear", she giggled, "I'd quite forgotten" even if we interpret the utterance "she said as if giggling" what assumes a metaphorical-prevalence reading – we will still be able to detect the conceptual link with the metonymic reading, i.e. it is possible to use them metonymically with reference to a scene where both the non-linguistic and the linguistic action reading are relevant. That is also the case for "beat one's breast', where the metonymic basis is the religious practice of beating one's breast while one publicly confesses one's own sins.

Metonymy within metaphor takes place when metonymically used entity is embedded in a complex metaphorical expression making the metonymy function within the target domain. In the phrase *to bite one's tongue off* the noun *tongue* can be processed literally in the donor scene. Mapping this onto the linguistic action we get something like "depriving oneself of one's ability to speak', where the metonymy between tongue and 'the speech faculty' remains regardless the metaphorical mapping. That explains why tongue is a better donor element rather than bite one's finger to map self-punishment onto the target domain of linguistic interaction. Another example is represented by the idiom "shoot one's mouth off" meaning to talk foolishly about what one does not know or should not talk about".

6.2.5. Criticism of conceptual metaphor theory

The criticism of metaphor theory develops in four directions:

1. It is treated as a surface representation of deeper conceptual phenomena, prompting the question why the traditional terms *metaphor* and *metonymy* are employed in the first place. Cognitivists often use the terms "metaphor" and "metonymy" in order to describe phenomena that do not really qualify as metaphors or metonymies.

2. Contextual criticism concerns the large collections of examples invariably cited without the specific communicative context in which they were actually produced (T.Givon). It is argued that the suggested cross-domain conceptual-metaphoric mappings are not constructed for the occasion, for the specific context. The vexing questions poised by T. Givon include the following:

- how do we know how to perform the requisite matching between a context, treated as target, and its underlying cognitive domain (source)?

- how does one sort contexts in order to assign to their proper – relevant – conceptual metaphor?

- is each context inherently matchable to a particular conceptual metaphor?

- how does one decide in which contexts to launch into metaphoric usage, and in which to deploy a semantically-equivalent literal expression?

- how can one target domain be metaphorically mapped onto multiple source domains via multiple conceptual metaphors?

In Givon's view the vast collection of out-of-context metaphors together with their classifiers are obtained through the study of competence rather than of performance.

3. The existence of conceptual metaphor is denied altogether (see V. Haser. *"Metaphor, Metonymy, and Experientialist Philosophy"*. Mouton de Gruyter, 1999). Her main criticism boils down to the difficulty of establishing similarity since any two objects resemble each other in infinitely many ways which are irrelevant to certain metaphors. According to this view, similarities are primarily the result rather than the basis of metaphorical transfer. However, it should be noted that Lakoff resorts to the mechanism of correspondence which is somewhat different from that of similarity.

4. Some scholars criticize this approach for its relation to the stylistic theories.

6.3. Conceptual integration

Conceptual integration deepens the metaphoric projection where the target space is projected on the input space by a more complicated procedure. Instead of one input space there are two of them which are blended into one space. The theory of conceptual integration was put forward by M. Turner and G. Fauconnier.

Mental spaces are small conceptual packets constructed as we think and talk for purposes of local understanding and action. They are believed to be structured by frames and cognitive models.

There are four spaces: two inputs, a generic space and a blend.

Their interaction is best demonstrated by a riddle about a Buddhist monk:

A Buddhist monk begins at dawn one day walking up a mountain, reaches the top at sunset, meditates at the top for several days until one dawn when he begins to walk back to the foot of the mountain, which he reaches at sunset. Making no assumption about his starting or stopping or about his pace during the trips, prove that there is a place on the path which he occupies at the same hour of the day on two separate journeys.

Input spaces contain basic information belonging to one category. In the case of the Buddhist Monk, each is a partial structure corresponding to one of the two journeys. Input 1 represents dynamically the entire upward journey, while Input 2 represents the entire downward journey. This information can be represented by the PATH image schema or by a richer FRAME of two travelers

going in opposite directions on the same path and meeting each other though this frame is claimed to be an emergent structure.

Cross-space mapping connects counterparts in the input spaces. In the case of the Buddhist Monk it relates the mountains, the moving individual, days of travel, and motion in one space to the mountain, moving individual, day, and motion in the other space. Such counterpart connections are of many kinds:

- connection between frames and roles in frames;
- connections of identity or transformation or representation.

In other words, an individual finds common features between common image schemas.

Generic space contains what those two input spaces have in common at any moment in the development of conceptual integration. A given element in the generic space maps onto paired counterparts in the two input spaces. In the case of the Buddhist Monk, the generic space has a moving individual and his position, a path linking foot and summit of the mountain, a day of travel.

Blended space has two counterpart identical mountain slopes mapped onto a single slope. The two days of travel, d1 and d2, are mapped onto a single day d' and therefore fused. While in the generic space and each of the input spaces there is only one moving individual, in the blend there are two moving individuals. The moving individuals in the blend and their positions have been projected from the inputs in such a way as to preserve time of day and direction of motion, and therefore the two moving individuals cannot be fused. Blends provide Integration of Events.

Blend construction involves three **operations**: composition, completion, elaboration

***Composition, or fusion*,** of elements from the inputs makes relations available in the blend that did not exist in the separate inputs. In the blend there are two moving individuals instead of one. They are moving in opposite directions, starting from opposite ends of the path, and their positions can be compared at any time of the trip.

Completion brings additional structure to the blend: the structure of two people moving on the path and meeting can itself be viewed as a salient part of a familiar background frame – two people starting a journey at the same time from the opposite ends of a path. There is no encounter in the generic space or either of the inputs, but there is an encounter in the blend. The composed structure is completed with other structure. In the monk example, the structure achieved through composition is completed by the scenario of two people journeying towards each other on a path which yields an encounter.

Elaboration develops the blend through imaginative mental simulation according to the principles and logic in the blend. We can run the blend indefinitely, e.g. the monks might meet each other and have a philosophical discussion about the concept of identity. Elaboration can be embodied in the extension of categories. The structure of this blend defines the new category structure, carving a new conceptual domain.

The optimality principles of conceptual integration theory:

INTEGRATION: the blend must constitute a tightly integrated scene that can be manipulated as a unit;

WEB: manipulating the blend as a unit must maintain the web of appropriate connections to the input spaces easily without additional surveillance or computation;

UNPACKING: the blend alone must enable the understander to unpack the blend to reconstruct the inputs, the cross-space mapping, the generic space, and the network of connections among all these spaces;

TOPOLOGY: for many input spaces and any element in that space projected into the blend, it is optimal for the relations of the element in the blend to match the relations of its counterparts;

BACKWARD PROJECTION: as the blend is run and develops emergent structure, avoid backward projection to an input that will disrupt the integration of the input itself;

METONYMY PROJECTION: when an element is projected from an input to the blend and a second element from the input is projected because of its metonymic link to the first, shorten the metonymic distance to them in the blend (Fauconnier and Turner 1999).

The conceptual integration theory has been applied to explain the meaning of number of linguistic phenomena which include phraseological units, word-building, combinability, humour effects, articles, and counterfactuals, i.e. conditionals.

Its use for the ***explanation of phraseological units*** is demonstrated by the phrase *to dig one's own grave* (Coulson) which is a conventional expression generally used as a warning or judgement, implying two things:

(1) you are doing bad things that will cause you to have a very bad experience;

(2) you are aware of these causal relations. But the causal structure is inverted here: foolish actions cause failure, but grave-digging does not cause death. It is typically someone's dying that prompts others to dig a grave. The intentional structure does not carry over, i.e. a dying person never digs a grave for himself. The internal event structure does not match: frame structure of agents, patients, and sequence of events is not preserved. The amount of trouble is mapped onto depth of grave.

This problem is solved when in addition to two input spaces we consider the blended space.

The blend in digging one's own grave inherits the concrete structure of graves, digging, and burial from the input space. In the blend, all the curious properties hold. The only difference is that the existence of a satisfactory grave causes death.

In the blend, *the existence of a grave* causes *death* instead of death causes the existence of a grave. It produces the emergent structure specific to the blend: undersirability of digging one's grave, exceptional foolishness in not being aware of it, correlation of depth of grave with probability of death. The emergent structure is not in the inputs – it is part of the cognitive construction in the blend.

In **word building**, the theory of conceptual integration explains the meaning of the following novel words:

- *skyjacking* "hijacking of a commercial aircraft" which is claimed to be formed from two input spaces represented by SKY and hiJACKING;

- *Chunnel* "the Channel tunnel" based on two input spaces of CHannel and tUNNEL;

- *glitterati* "glamorous elite" resting on two input spaces of *literati* "intellectual elite" and *glitter* (S.Kemmer).

In the last example, the first input space of *literati* shows the expert knowledge of literature, they discuss literary matters, their members are cultivated and conversant; they value language and its expressive possibilities. The second input space of *glittering things* includes fashionable dress, diamond, gold, high society. The blend *glitterati* is not the sum of input spaces. In it we find only some elements of input spaces and elements that are quite new, i.e. which are absent in input spaces. In *glitterati* no reference is made to knowledge, science, books and intellectuals. The concept "illustrious" which appears in the input space of glittering is redefined in the blend as CELEBRITY. What we do not find in the blend is the concept if high society.

The application of conceptual integration theory to the explanation of **combinability** of words is demonstrated by the analysis of the phrase "safe shovel" used in the context of the child playing at the beach (H.Kardela). This word combination rests on two input spaces. The first one is for the adjective *safe* which evokes the frame of potential danger and the second one is that of input space for *shovel*. The generic mental space contains all those elements that are common to the mental space of safe and a shovel: the element 'lack of danger' appearing in the mental space for *safe* has its counterpart in the mental space for shovel being used properly, safely, without causing any harm.

All these changes take place in the blend: although in the real life situation the shovel is safe because it is dull, in the blend it is sharp enough to cause injury. Put differently: when we modify the noun with the adjective *safe*, we effectively integrate the abstract frame of danger and the situation in which the child is playing with a shovel into a counterfactual event of harm being made to the child.

The application of conceptual integration theory in **humour analysis** is illustrated by the following joke: "*Tom has claustrophobia and agoraphobia at the same time. He spends most of his time standing in doorways*" (J. Jablonska-Hood).

In this case input space 1 includes *Tom* and his first condition in the form of *claustrophobia*, the confined spaces that bring about the phobia in question.

Input space 2 includes *Tom* again with his second condition, i.e. *agoraphobia*, and the open space which underlies it.

These mental spaces are topologically linked into mappings as follows: Tom is the same Tom in both spaces, claustrophobia is mapped onto agoraphobia, and finally confined spaces are mapped onto open spaces.

Such mappings are then projected onto blended space, where their relation acquires incongruity as it is apparent that the claustrophobic Tom cannot be the

agoraphobic Tom in one person and there is no way in which we can unite closed spaces with the open ones.

In the end, the incongruous blend acquires its own emergent structure in the threefold manner. Initially, composition makes the projected relations become unified. Secondly, completion gives rise to associative stage, where it is possible to imagine, by means of mental simulation, Tom as standing in the doorway: this can be said to combine to some extent the closed and open spaces, or rather to be the concept in between these. Similarly we may simulate the picture of Tom being in a room with no walls but just posts to signify the four corners of the room, which again would be an attempt to combine both the confined and the open spaces. Thirdly, elaboration will enable the manipulation of the blend as a whole unit, a case in point of which may be the idea that Tom does not leave the house without carrying a doorway around himself, so as to feel secure and avoid inducing panic attacks.

Conceptual integration is also applied to the explanation of confused, comically inaccurate use of long words called **malapropisms** which include *windscreen vipers*, *civil serpent*, e.g. *The Civil Serpents are these hideous snakes that while around all day in the Town Hall, making up all these laws against nature* etc (K.Zysko).

In the phrase *civil serpents* the conceptual blend is formed out of input spaces of CIVIL SERVANTS and SERPENTS in the following way.

The first input space includes the concepts of AGENT, GOVERNMENT WORKER, GOAL which consists in WORKING FOR THE COUNTRY.

Input space 2 encompasses ANIMALS, EVIL, DANGER.

Hence, the generic space includes the concepts of AGENT and ANIMALS. The blend is supposed to be represented by GOVERNMENT WORKER, EVIL, ELEMENT OF SURPRISE, HUMOUR.

The theory of conceptual integration also explains the use of articles with names of persons in the sentence like *Rivers is the Rider Haggard of anthropology; I shall be the Conrad* (A.Głaz). In these statements the author establishes an analogy between the fields of anthropology and literature, as well as two mappings between their elements: *Rivers – Haggard* and *ego – Conrad*. The needed encyclopedic knowledge is that Sir Henry Rider Haggard was an English writer whose adventure novels depict exotic geographic locations and are rather light in tone as well as that Joseph Conrad's writings are more demanding and more serious in tone but rewarding in their literary value and the depth of the penetration of human nature.

There is thus a clear opposition between what is "light", "entertaining", "not very ambitious" and therefore "poor", and that which is "serious", "intellectually advanced" and "of high quality". That opposition is mapped onto the field of anthropology, in connection with which one must know that William H. R. Rivers dealt with shell-shocked soldiers during WWI and produced work on kinship. By establishing a mapping between Haggard and Rivers, the speaker evaluates the work of the latter as "light" and therefore not very valuable, as well as his own work – serious and penetrating.

Understanding **counterfactuals** includes building a generic space which fits both input spaces which is demonstrated by the sentence *In France, Watergate* (scandal) *would not have harmed Nixon*. The generic space is supposed to fit both American politics and French politics. It includes a leader who is elected, who is a member of a political party, and who is constrained by law. The motive of saying that sentence is to stop someone from projecting certain kinds of information to the generic space on the assumptions that it applies to *French politics*. The speaker lays down a limit to this projection by constructing a specific, counterfactual, and pragmatically anomalous blend. In this counterfactual blend, an illegal act directed with the knowledge of the elected leader against the opposing political party leader will not cause the public outrage associated with the Watergate scandal. For this central inference to take place, we must have both the nature of the event from 'the Nixon in America" input and the general attitudes from the 'France' input. The blend provides a Watergate-like event in France. Elaboration includes the explicit prediction that the president is not harmed. There is a projection back to the Inputs: France has features that the U.S. does not have. An attempt to impose structure from one input onto the other.

To sum up, the conceptual integration theory reveals that the development of processing models consists in accounting for a bigger number of factors influencing our thinking. While the metaphor theory rests on the relation between the two spheres of source and target, the integration theory is based on four components which include two input spaces, a generic space and an emergent space. However, much of the thinking concerning the relations between the spaces rests with the researchers. It can be expected that the future theories will take into account a bigger number of premises and intermediary stages which determine human thinking underlying the use of language.

Questions for self-control

1. What are the approaches to the explanation of metonymy? Is it possible to combine them into one theory?
2. What are the possible explanations of metonymy with the help of other cognitive phenomena?
3. What is the mechanism of conceptual metaphor?
4. What are the types of conceptual metaphors?
5. What do you know about the discourse approaches to metaphor?
6. What is the difference between metaphor and metonymy?
7. What is the essence of metaphtonymy?
8. What is the mechanism of conceptual integration?
9. What is the difference between conceptual integration and conceptual metaphor?

Further reading

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PART 7

SOCIALLY-BASED COGNITIVE MODELS OF LANGUAGE

In the past decades, linguistic analyses within Cognitive Linguistics and other cognitively oriented theories were all too often carried out at the level of 'a general, uniform language', disregarding the rich and complex patterns of intralingual and communicative variation in language. Such a shallow level of granularity ultimately amounts to that of a homogeneous and thus idealized speech community. To the extent that Cognitive Linguistics takes its claim of being a usage-based approach to language and cognition seriously, it cannot continue to work with an implicitly assumed conception of language being situated taxonomically at a high level of abstraction. Therefore an orientation gaining increasing attention shifts the focus from internal grounding of concepts, i.e. the experiential basis of embodiment of concepts, to discussion of the social aspects of linguistic cognition, i.e. "he processes that are at work when 'emerged' concepts acquire a role in the social process" (P. Harder 2010). In this framework it is claimed that the similarity of conceptual construal and social construction lies in their refusal of objective properties as the determinant of the content of understanding, and the acknowledgement of the important role of human factors. Their divergence lies in the fact that social construction stresses the social pressures for conceptualization, while conceptual construal emphasizes bodily grounding of human cognition. Therefore it is important to find an overall framework that integrates hard facts as well as processes of social construction with the conceptual domain that constitutes the heartland of cognitive linguistics

Cognitive Sociolinguistic and Cognitive Ethnolinguistics research fill this gap in an enriched manner, by combining the Cognitive Linguistics theoretical framework with the empirical methods used in sociolinguistics and social science at large.

7.1. Cognitive sociolinguistics is broadly defined as an attempt to achieve convergence of Cognitive Linguistics and the tradition of sociolinguistics.

Cognitive Sociolinguistics puts speakers in their socio-cognitive-functioning in the centre of attention.

Cognitive Sociolinguistics covers research on social variation, cultural models, ideology research on sociopolitical and socio-economical systems as well as folk cultural models (G. Kristiansen, R. Dirven).

Cognitive Sociolinguistics may roughly be said to fall within four thematic areas:

- general models of social factors in Cognitive Linguistics: the role of social variation in language as a complex dynamic system, in a socio-evolutionary view of language, in language as an epigenetic system, in situated embodiment, in an intersubjective view of language;

- lectal, i.e. *dialectal* (used to avoid perjorative connotations) and situational variation of meaning and meaningful constructs: lectal variation of lexical and constructional meaning; social distribution of prototype effects, metaphors and metonymical patterns; cognitive conceptions of meaning (and function) as the basis of the sociolinguistic variable; language-internal variation of cultural models;
- cognitive representation, perception and processing of language variation: prototype and exemplar-based models of variation; usage-based frequency effects in lectal variation; metaphorical linguistic attitudes; metonymy and stereotyping; cultural models of variation and normativity; cognitive aspects of perception, accommodation, linguistic identities, and the acquisition of lectal competence;
- the interactional dynamics of meaningful variation: the flexible expression of identities in language use.

The prototype theoretical research suggests that one should take into account three types of sociosemantic forces: a semantics of cooperation underlying the prototyped-based extensions of meaning; a semantics of authority, i.e. the division of linguistic labor; a semantics of conflict and competition, i.e. when semantic choices are implicitly questioned and explicitly debated (D.Geeraerts).

Cognitive Sociolinguistics is an extension of Cognitive Linguistics to the areas of discourse and social interaction accompanied by attention to quantitative and qualitative variation to be found in standard and non-standard varieties of language. In other words, it is connected with the usage-based linguistics which takes the language as it is actually used by real speaker in real situations in specific historical moments (G. Kristiansen, R. Dirven).

Cognitive Sociolinguistics extends the cognitive paradigm to the regional and social patterns involved in linguistic symbolization. This focuses on how language usage in different regional and social groups is characterized by different conceptualizations, by different grammatical and social preferences, and by difference in the salience of particular connotations.

These studies mainly employ cognitive methods to deal with sociolinguistic problems. The prototype theory and reference-point relations are employed to explain style-shifting as well as the metonymic relations LANGUAGE STANDS FOR SOCIAL IDENTITIES and LANGUAGE IS A TOOL FOR EXPRESSING SOCIAL IDENTITIES (G. Kristiansen).

Scholars studying cultural models and language policy explore cultural models (rationalist and romantic) which results in specific metaphoric and metonymic conceptualizations, underlying attitudes to global languages and towards the use and instruction of foreign languages, investigate how cultural conceptualizations live on in a newly adopted language, and discuss the cultural adaptations of various instances of World English. Scholars study the folk cultural models that underlie attitudes to particular languages.

Other studies try to unravel different conceptualizations across ethnic groups even if the same language is spoken with hardly any difference in pronunciation. In this vein, the understanding of the lexical item “home” is found to be different for

Aboriginal and Anglo-Australian children (F. Sharifian). The study of global English reveals that English grammar and vocabulary get variety-related conceptualization.

The studies also concern the social and political systems from the Cognitive Linguistic view. They analyze the cognitive construction of corporate identities in business media discourse which mostly relies on literalised concepts of partnership and emotions to convey the company's ideal self which in its turn entails a move from competitive to cooperative models of business (V.Koller).

The investigation of the metaphorical mappings of business models at universities reveals that university education is predominantly conceptualized in terms of business and market: a service, bought and paid for like any other, subject to efficiency and productivity and restricted to those who can afford it (N. Urban).

The study of the relation of gender in the classroom discourse reveals that male students are grounded in the metaphor SEMINAR IS A GAME while female students employ expressions grounded in the mapping SEMINAR IS A COMMUNITY (S. Fiksdal).

Social systems are conventionally characterized in one of the three ways: competitive, cooperative, and interconnected (P. S. Mordan).

Currently Cognitive Sociolinguistics is in search for methods that may adequately unravel the complex and multivariate dimensions intervening in the interplay between conceptual meaning and variationist factors. It resorts to the corpus-based techniques, experimental methods and survey-based research.

Social-variationist studies in Cognitive Linguistics are an emerging field with programmatic ideas. With respect to variation the primary question is how does language internal variation affects the occurrence of linguistic phenomena that have the specific attention of Cognitive Linguistics, i.e. meaning. Social variationists distinguish two types of variation: conceptual onomasiological variation which involves thematic choices, like talking about public transport rather than wine or music; and formal onomasiological variation which determines the choice of words brought about by speaking different variants of a language, e.g. *subway* and *underground* (D.Geeraerets, G. Kristiansen, Y. Peirsman).

Cognitive Sociolinguistics pays special attention to world Englishes. It concerns the cognitive sociolinguistic analysis of African English, the field of intercultural pragmatics.

7.2. Cognitive ethnolinguistics

Cognitive cultural linguistics can be treated as a cognitive approach to the research trend dealing with culture and known under many names: ethnolinguistics, linguo-culturology, anthropological linguistcs, anthropological-cultural linguistics, or linguistic anthropology. All these terms reflect the same basic idea: the study of language must also take into account the speech community and its culture.

The most advanced cognitive linguistic approach to culture is that of Cognitive Ethnolinguistics developed by E. Bartmiński over the last 40 years in

Lublin (Poland). The Ethnolinguistic School of Lublin represents “a distinctive cognitive-linguistic approach to the study of language in its cultural context” (J. Zinken), and has developed from the research of Bartmiński and his team over four decades. Most of this work appears in the international journal "Etnolingwistyka", and it led to the publication of the “Dictionary of Folk Symbols and Stereotypes” (1996-1999).

The distinctiveness of the School lies in its focus on the description of folk varieties of Polish. Research is based on fieldwork and the collection of real world data of a typically oral tradition, e.g. stories, conversations, songs, proverbs, fairy tales, folk poetry. The socio-cognitive component of the School consists in its aim to reconstruct the worldview of rural speakers of Polish from the linguistic data and in its study of terms that refer to culturally important values, e.g. freedom, work, family, church, father, bread.

This socio-cultural orientation is shared with current trends in Anglo-American cognitive linguistics. The two traditions also have in common an interest in lexical semantics and patterns of conceptualization. The Ethnolinguistic School of Lublin is further linked to Anna Wierzbicka's work on semantic primes and cultural keywords.

The revival of cognitive ethnolinguistics in Eastern Europe is explained by historical motivations. During communism people experienced how the language of propaganda strongly influenced their own perception of reality. When the Soviet Union and the Eastern Block eventually collapsed, people felt a need to reconstruct a sense of shared identity. This process clearly involved consideration of the role of language in shaping local, regional, national and group identities. The cognitive ethnolinguistic enterprise responded to this need by putting the close connection between language, speech community and its culture at the core of its investigation.

The analytical lens of Bartmiński's research is focused on the expression of **stereotypes**, understood as essentially descriptive judgments of an object that are only secondarily evaluative. The reason for this is twofold. Stereotypes are expected to reflect linguistically entrenched interpretations of the world. Stereotypes also indicate a speaker’s socio-cultural situatedness.

Bartmiński’s treatment of stereotypes is partly indebted to Lippmann’s (1922) pioneering work on the topic, and to a large extent also to the later work of the American philosopher of language Hilary Putman (1975). From Lippmann, Bartmiński derives the idea of stereotypes as schematic images that are culturally rooted (based on common opinions about a certain phenomenon) and psychologically motivated (they reduce the effort of getting to know the world). For Putman, as for Bartmiński, stereotypes are pervasive in the lexicon of every natural language, they are conventionalized and they are connected to connotative aspects of meaning (i.e. sets of meanings that one has in mind when using a term). In addition, according to Putman and Bartmiński, stereotypes can be best explored in colloquial speech. Bartmiński’s description of stereotypes is guided by the ‘cognitive definition’ which aims to portray the way in which an entity is viewed by the speakers of a language and to represent socio-culturally established and

linguistically entrenched knowledge, its categorization and valuation. This approach presupposes an encyclopedic view of knowledge since extralinguistic phenomena like customs and beliefs are considered integral part of meaning.

Bartmiński reconstructs a subject's 'point of view' and 'perspective' through an examination of his / her linguistic 'profiling' of stereotypes. For Bartmiński someone's point of view, system of values, rationality and knowledge of the world all contribute to the construction of perspective as a kind of superordinate category. Perspective then drives profiling, defined as a subjective (i.e. performed by the speaking subject) linguo-conceptual operation, which consists in shaping the picture of the object in terms of certain aspects (subcategories, facets) of that object: e.g. its origin, features, appearance, function, experiences, events connected with them, etc., within a certain type of knowledge and in accordance with the requirements of a given viewpoint.

The notion of profiling is very close to Langacker's (1987) but the focus is different. Bartmiński is interested in defining the local rather than the universal when he commits himself to cognitive analysis. His emphasis is on the 'facets' (Langacker's domains) of reality which are linguistically entrenched and emerge as typical for a particular speaking subject. Profiling depends on an 'experiential frame' that reflects spatio-temporal specificity and at the same time bears the traces of historical determinism. This approach makes the distinction between synchrony and diachrony collapse since the experiential frame that determines the subject's profiling does not simply depend on an individual's personal experience but it is also the product of social, collective memory. The outcome of profiling is a 'profile', understood as a variant of the image of a given object, shaped through the selection of facets.

In fact, the aim of the ethnolinguist is to reconstruct on a linguistic basis a subject-related / subject-oriented linguistic worldview found in a specific cultural community. The cultural orientation of the Lublin ethnolinguistic school has ramifications for the understanding of some important cognitive linguistic concepts, especially that of experience, or 'experiental frame' within which profiles operate. According to this school it is not only an individual's 'first hand' experience that enters their experiential frame, but also experience entrenched in 'social memory', i.e. in stereotypical judgements. For example, Bartmiński distinguishes three aspects in which house / home exemplified by the Polish *dom* can be understood: a spatial dimension (*the building*), a social dimension (*a community*), and a functional dimension (*an institution: the family*).

Bartmiński analyzes the changes in the stereotypes of the Germans in Poland and shows that profiling is socio-culturally determined. Linguistic entrenchment of stereotypical judgments about Germans can be found in a good number of Polish lexemes and idioms. The analysis of these linguistic expressions reveals significant profiles of Germans that are motivated by a long history of Polish-German relations. They include the profile of the German as the invading enemy (ideological perspective), the prototypical foreigner (cultural perspective) and a well-off western European (civilizational perspective). This latter profile is the one that tends to be the default current interpretation.

The kind of research Bartmiński advocates should be contrastive, based on the notion of typology, and focused on the semantic (in the broad sense) analysis of sociopolitical and ethical lexis (e.g. democracy, nation, justice, responsibility, conscience, courage, work, truth, etc.) which in his view could contribute to a better coexistence of nations.

Questions for self-control

1. What brings about the development of socially oriented cognitive linguistics?
2. What problems does the Cognitive Sociolinguistics deal with?
3. What are the roots of the development of cognitive ethnolinguistics in Poland?
4. What is Bartmiński's understanding of a stereotype?
5. What is the difference in the understanding of profiling between R. Langacker and J. Batrmiński?

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PART 8

DISCOURSE-RELATED COGNITIVE MODELS OF LANGUAGE

The previously discussed relations between language and human faculties of perception, categorization, memory, reasoning are subsumed to the communicative activity of an individual in discourse. Therefore this part of the manual deals with how the linguistic relations based on human faculties are incorporated into discourse at different levels: cognitive grammatical, constructional grammatical, cognitive rhetorical and cognitive poetical.

8.1. Cognitive Grammar

The Cognitive Grammar, initially called Space Grammar, diverges from standard assumptions in two fundamental respects: it claims that grammar is symbolic in nature and it focuses on constructions rather than rules.

A language is defined in Cognitive Grammar as a structured inventory of conventional linguistic units where a unit is a pattern of processing activity that is thoroughly mastered and can thus be carried out more automatically.

In Cognitive Grammar lexicon and grammar form a continuum consisting of assemblies of symbolic structures. The assemblies usually recognized as lexical items can be characterized as fixed expressions, i.e. conventional units and expressions, to a substantial degree of semantic and especially phonological specificity. More schematic symbolic assemblies are traditionally viewed as belonging to grammar rather than to lexicon.

In Cognitive Grammar, grammatical patterns are represented by schemas. A construction is defined as either an expression or a schema abstracted from expressions to capture their commonality. Expressions and patterns differ in degree of specificity. Specific expressions with the status of units are traditionally recognized as lexical units. More schematic units correspond to what is traditionally regarded as grammar.

Things and relations

For Cognitive Grammar there are two basic conceptual entities, i.e. things as independent entities, and relations establishing links between things. Linguistic expressions that profile things are nouns, pronouns, determiners, and higher-order expressions such as full noun phrases. Linguistic expressions that profile relations are verbs, prepositions, conjunctions, and adjectives.

Things are independent conceptual entities such as *book* or *linguistics*, whereas ***relations*** are conceptual entities constituting conceptual links between things such as the temporal relation or the atemporal relation.

These relations are demonstrated by the phrase *smart woman*. The noun *woman* profiles a thing. The semantic integration of *smart* and *woman* hinges on a correspondence between the adjective's trajector and the noun's profile. By superimposing these elements and merging their specifications, we obtain the

compromise semantic structure, in which a thing characterized as a woman is located on a scale of intelligence. The composite expression profiles the woman (a kind of thing), so the overall expression is classed as a noun.

Within Cognitive Grammar a construction is treated as an assembly of symbolic structures. The cognitive grammatical characterization is basically the same whether a construction is specific or schematic, whether it is fixed or novel, and whether it is morphological or syntactic. In a typical construction, two component symbolic structures are integrated to form a composite symbolic structure.

Conceptual entities are joined to one another by assembling them into increasingly larger and more complex units. Thus *book* is assembled with *about linguistics* into the relationship *book about linguistics*; this initial assembly is in its turn combined with *good* into *good book about linguistics*; these are all atemporal relations, which are further assembled with the temporal relation: *I know* into *I know a good book about linguistics*. This principle of composing and integrating smaller units into larger higher-order ones is known as compositionality.

Cognitive Grammar rests on two types of relations: finite verbs profile temporal relations; non-finite verbs, prepositions, conjunctions, and adjectives profile atemporal relations. For Langacker, noun and verb are an intrinsic part of grammar and thus have a universal status.

The respective prototypes for the noun and the verb categories are two conceptual archetypes: a physical object and a force dynamic event, specifically an Agent-Patient interaction. In more general schematic terms, Cognitive Grammar proposes that a noun profiles a thing, while a verb profiles a process.

The thing is treated as a product of grouping which is ubiquitous in perception and cognition and reification, i.e. the manipulation of a group as a unitary entity for higher-level cognitive purposes. Groups are reified when each is treated as a single entity for the purpose of counting. Many nouns profile things obviously formed from constitutive entities in this fashion: group, set, stack, team, alphabet, orchestra, collection. Physical objects are precisely the case where grouping and reification are too low-level and automatic to be consciously accessible.

Verbs indicate a process based on sequential scanning, in which the component states are serially accessed as in viewing a motion picture. Verbs have a high degree of temporality, for sequential scanning reinforces the profiled relationship's evolution making it salient.

Relations with a lesser degree of temporality are said to be atemporal which consists either of a single state or because its temporal extension is viewed in summary fashion. Atemporal relationships are profiled by adjectives, adverbs and adpositions. Participles and infinitives are derived from a verb by imposing a summary view on the process it designates, producing either an atemporal relation or an abstract thing.

Basic and non-basic domains

In Cognitive Grammar basic are certain realms of experience not reducible to anything more fundamental. These basic domains include space, time, domains

associated with the various senses, such as color. A basic domain is not a concept, but rather provides the experiential potential for the conceptualization to occur. Minimal concepts exploiting this potential include such notions as angle, line, curvature, focal colors, temporal precedence.

These sorts of basic elements determine the construction of more elaborate conceptions with no upper bound on their ultimate complexity. A concept or conceptual complexity of any size, at any level of conceptual organization, is called **a nonbasic domain**. A linguistic expression evokes a set of domains – basic or nonbasic as the basis for its meaning. Collectively, these domains are referred to as the expression's **conceptual matrix**. A domain representing any level of organization or degree of complexity can be part of an expression's matrix and crucial to its semantic characterization. For example, *red* evokes the basic domain of color space, and *arm* the archetypal conception of the human body. Among the domains for the count noun *glass* Langacker distinguishes the following:

- specification of its typical shape (the basic domain of space);
- conception of its typical orientation (shape specification);
- its function as a container for liquid (involving shape and orientation);
- its role in the process of drinking (including the container function, the conception of the human body, of grasping; a specification of its material (usually the substance glass);
- its typical size and numerous other, more peripheral conceptions.

The activated domains provide an expression's conceptual content. Its meaning is not just the content evoked – equally important is how the content is construed.

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8.2. Construction grammars

*Constructions are treated as conventionalized parings of form and function which are **constructed** rather than **learnt** on the basis of the input together with general cognitive, pragmatic, and processing constraints* (A. Goldberg).

Constructions are viewed as linguistic patterns for which some aspect of either form or function is not strictly predictable from its component parts. In addition, even fully predictable patterns are now called constructions, if they are frequent enough to become entrenched as units. This re-definition gives a nod to

usage-based models of grammar (Barlow and Kemmer 2000, Bybee and Hopper 2001), in which even regular patterns are redundantly stored.

Goldberg emphasizes that knowledge of language is knowledge of constructions all the way down: from abstract argument-structure constructions to individual morphemes. Construction grammar starts from the existence of gestalt-like patterns of established configurations that are simpler to produce and have meaning relations between the composing parts above their ad hoc compositional meanings, which carry meanings independently of the words in the sentence. This grammar is based on the abstract predicates like CAUSE – MOVE.

Constructionist approaches differ from generative grammar and cognitive grammar strand. Unlike generative grammar constructionist theories do not derive one construction from another: an actual expression typically involves the combination of at least half a dozen different constructions. Constructions are combined freely to form actual expressions as long as they are not in conflict. Unresolved conflicts result in judgement of ill-formedness. For example, in **Liza sent storage a book* the specification of the ditransitive construction that requires an animate recipient argument conflicts with the meaning of *storage* resulting in unacceptability, unless storage is construed to mean the people who work in storage.

Unlike Cognitive Grammar, construction grammar claims that compositionality cannot account for all linguistic phenomena and therefore favours the acceptance of a third conceptual-linguistic unit of construction in addition to things and relations. Constructions as fixed patterns in the combination of relations and things are not built compositionally, but are available as whole units with their own constructional meaning. For example, the linguistic expression *I painted myself in a corner* can have two different interpretations brought about by two constructional paths.

The compositional build-up accounts for the literal meaning that the speaker made a picture of himself/herself and did so in a corner. In this interpretation the object (*myself*) is joined to the verb (*paint*) into a verb phrase that is then assembled into a relationship with the subject (*I*) thus yielding a new composite structure that is further assembled to the adverbial phrase (*in a corner*).

The non-compositional meaning is quite different, i.e. 'I expressed an opinion, which committed me to things I subsequently regretted'. This meaning is based on the figurative interpretation of the whole construction whereby the speaker does something that brings him/her into an unpleasant state. In such a construction there is no assembly of the verb (*paint*) and a direct object (*myself*), but only between the verb (*paint*) and the subject (*I*) and between the pronominal noun phrase (*myself*) and the adverbial phrase (*in a corner*). In the constructional units the interpretation process is claimed to follow a top-down direction, while in compositional constructions the interpretation results from a bottom-up assembly of the various lexical units into increasingly larger phrases and a clause.

Construction grammar differs from Langacker's Cognitive Grammar in the rejection of compositionality as the main principle governing the grammar of a language. It claims that languages have numerous fixed or idiomatic expressions,

or constructions, i.e. grammatical units in themselves. In A. Goldberg's view any linguistic pattern is a construction as long as some aspect of its form or function is not strictly predictable from its component parts or from other constructions recognized to exist. Therefore constructions may include morphemes, or words, idioms, partially lexically filled and fully general phrasal patterns.

There are four main **approaches** towards defining a construction:

- constructions can be conceived of as internally complex entities, i.e. "any linguistic form which can be analysed into its parts";

- constructions can be defined as pairings of form and meaning. In narrower approaches (e.g. Goldberg 1995), however, only those form-meaning pairings that have unit status or even only those whose properties cannot be derived from the properties of any other construction are regarded as constructions proper;

- any element of a language that has been learned and that forms part of a speaker's linguistic knowledge (Taylor 2012).

From this viewpoint, even basic sentence patterns of a language can be understood to combine with an argument structure construction, e.g. transitive, intransitive, ditransitive etc, e.g. *Chris gave Pat a ball*. In the given example *give* is a three argument verb and is expected to appear with three complements corresponding to agent, recipient, and theme. They are said to be essential to an effective account of both unusual or especially complex patterns and they may be invoked to account for the basic, regular patterns of language as well;

- Radical Construction Grammar sees constructions as the only basic linguistic unit, or primitive, both in lexicon and grammar. The lexicon contains "atomic substantive constructions" while the syntax or syntactic rules are "complex schematic constructions". Unlike Langacker who distinguishes semantic and phonological poles, the radical construction grammar posits three levels: semantic structure, grammatical form, phonological structure.

Construction grammar distinguishes different **degrees** of compositionality: full, partial, non-compositionality.

Anatol Stefanowitsch distinguishes strict and loose constructionality. Strict constructionality refers to a view where every linguistic unit – morphemes, lexemes, fixed or flexible multi-word expressions, and grammatical structures – are seen as constructions on an equal footing. Loose constructionality, in contrast, refers to a view that accords an elevated status to grammatical structures and multi-word expressions as subordinate in some cases. This difference is demonstrated by an utterance like *John threw Mary a ball*. Under a ***strictly*** constructional interpretation, this utterance would manifest 11 constructions: subject-predicate, verb-phrase construction licensing two direct objects, two types of noun-phrase constructions, the ditransitive argument-structure construction, the past-tense construction, and the five lexical items. Under a ***loosely*** constructional interpretation, this utterance would manifest as little as one construction, the ditransitive construction, which provides both the argument structure and the grammatical relations and five words that have been inserted into the slots provided by the construction.

Constructionist approach claims that different surface forms are typically associated with slightly different semantic and/or discourse functions which is demonstrated by ditransitive constructions which evoke the notion of transfer or giving which is contrast to possible paraphrases. However, the implication of transfer is not an independent fact about the words involved, rather the implication of transfer comes from the ditransitive construction itself. The sentence *Liza bought a book for Zach* can be used to mean that Liza bought a book for a third party because Zach was too busy to buy it himself while the sentence *Liza bought Zach a book* can only mean that Liza intended to give Zach the book.

Constructions and generalizations. The construction-based framework rests on linguistic generalizations within a given language via the same type of inheritance hierarchies that have long been used for representing non-linguistic generalizations.

Broad generalizations are captured by constructions that are inherited by many other constructions; subregularities are captured by positing constructions that are at various midpoints of the hierarchical network. Exceptional patterns are captured by low-level constructions. The constructionist approach states that we simultaneously learn both item specific knowledge and generalizations over that knowledge. In this version purely formal generalizations, i.e. generalizations about morphosyntactic patterning formulated independently of their associated semantic or pragmatic interpretations play a minimal role.

English corpora of child-caretaker interaction show that argument structure constructions are predominantly used with one highly typical verb, which strongly connects the semantics of that verb to the semantics of the construction as a whole. For example, the intransitive motion construction is overwhelmingly often instantiated with the verb *go*, the caused motion construction favors *put*, while the ditransitive construction occurs with *give*. Children induce the constructional meaning from these verbs, and generalize it once they hear the construction used with other verbs. Once generalizations are acquired they are constrained. Goldberg presents three factors that constrain the productivity of constructions. For a construction to be productive, it needs to have a high enough discourse frequency, a large enough variety of co-occurring lexical elements, and the particular extension must not be pre-empted by an already existing form.

Goldberg argues that speakers are encouraged to learn constructions because they are a reliable predictor of sentence meaning. In fact, constructions indicate ‘who did what to whom’ more reliably than verbs alone. Corpus analyses of the caused motion construction and the ditransitive construction show that argument structure has a high cue validity for sentence meaning. While some verbs (e.g. *put* for the caused motion construction) are very reliable predictors of sentence meaning, other verbs require the listener to rely on argument structure. The importance of constructions as predictors of sentence meaning is further underscored by evidence from sorting tasks, where subjects ordered sentences according to ‘overall sentence meaning’. Expectedly, sentences with the same verbs were sorted together, but subjects also sorted sentences together if they

instantiated the same construction. Goldberg argues that argument realization follows general functional principles. For example, agents and undergoers are cognitively salient, and therefore expressed in prominent syntactic slots.

An innately specified mapping of agent and undergoer onto grammatical subject and object is problematic, because it presupposes the cross-linguistic existence of subjects and objects. Another tendency is that the number of arguments tends to align with the number of overtly expressed participants. Again, this is no innate feature of grammar, but results from the pragmatic pressure to express relevant and non-recoverable participants.

Constructions and rules. A construction-based approach tolerates a certain amount of redundancy, predicting that even regularly formed expressions may be stored in memory rather than being generated in every single case. This view is substantiated by the results of experimental studies such as lexical decision tasks. Contrasting the autonomy of syntax hypothesis with constructional and collostructional (Stefanowitsch and Gries 2003), Taylor concludes that "even the most general syntactic patterns of a language need to be regarded as constructions.

The criticism mainly concerns Goldberg's constructionist theory. It is believed that she does not offer any model or theory that can produce an open-ended number of novel utterances based on the finite amount of input. Instead she offers a lot of information about how constructions can be learned and generalized, and how well-known machine learning algorithm can be applied to combine multiple cues in generalizing constructions. It is claimed that as long as we have no precise definition of the combination operations between the production units, there is no way that construction grammar can be tested as a linguistic model. Therefore construction grammar is seen as a set of insightful but untestable ideas (B. Rod).

The constructionist approach requires further development along the following lines:

- linguistic knowledge emerges from exposure to actual language use;
- knowing a language means much more than just knowing the words of a language, instead, language is organized in terms of constructions. Therefore a large part of what constitutes a language has to be considered idiomatic;
- frequency of occurrence is highly important with regard to the emergence of usage norms in a language, speakers are capable of generalizing over the data they encounter which facilitates language comprehension in that it provides schemas against which utterances can be understood and lays the ground for linguistic creativity and innovation.

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8.3. Cognitive rhetoric

Traditionally rhetoric has been associated with the use of spoken language to list and describe linguistic and paralinguistic devices that should be used when delivering formal public speeches. Contemporary rhetoric is seen as power of persuasion (Bonnefille 2012) with modern definitions covering a wide array of genres and media (Tabakowska 2012).

The advent of cognitive rhetoric is brought about by the necessity to explain the mechanisms underlying the functioning of the persuasive devices in various speech genres and is propelled by cognitive linguistics with its numerous research procedures.

Cognitive rhetoric is defined from two perspectives: ontological, i.e. that of language users, and epistemological, i.e. with respect to the methods applied by researchers. Ontologically, from the sender's perspective rhetoric is viewed as a study of linguistic devices and strategies employed to affect the recipients' viewpoint and way of thinking (Kwiatkowska 2012), and with respect to the sender – viewer interaction it is treated as a study of fundamental cognitive processes at both the giving and the receiving ends (Tabakowska 2012).

Epistemologically, cognitive rhetoric is viewed as an application of cognitive procedures to the study of persuasive means, i.e. a study of a correspondence between Cognitive Semantics which seeks to understand how we generally conceptualize, imagine, and reason, and rhetorical theory, which seeks to understand how we conceptualize, imagine, and reason in particular situations (Oakley 2005).

With the ontological and epistemological approaches in mind, cognitive rhetoric can be defined as *a study of linguistic and extralinguistic persuasive means with application of the methodology of Cognitive Linguistics to reconstruct the fundamental cognitive processes at giving and receiving ends*.

To put it in a nutshell, *homo rhetoricus* uses language as a means to satisfy needs and achieve intentions and purposes (J. Fahnestock).

The cognitive rhetorical studies fall into two approaches: atomistic, applying separate conceptual operations, and complex, drawing on the combination of the ancient rhetorical tradition and modern cognitive approaches.

8.3.1. Atomistic approaches within cognitive rhetoric resort to a number of procedures discussed in the previous chapters: conceptual metaphor and metonymy; force dynamics and image schemas; conceptual integration; Cognitive Grammar.

The application of **conceptual metaphor** in cognitive rhetoric is not surprising as the traditional metaphor was one of the most powerful persuasive tools of ancient rhetoric. The conceptual metaphor procedure works well when a particular metaphor underlies the structure of a certain conceptual sphere represented by particular texts. This approach is exemplified by conceptualizing God either as Strict Father or a Nurturant Parent to two visions of morality predominant in modern American society (Lakoff, Johnson 1999) as well as

Lakoff's interpretation of political choices of American voters as the consequence of these two conceptualizations of God (1996). In this vein, Kövecses presents conceptual metaphors as the basis of the Christian creed and the biblical theological narrative (2008).

In cognitive rhetorical media studies **conceptual metaphor** concerns the discussion of the newspaper and television afterlife of metaphors produced in speeches.

One of such studies deals with the metaphors of Tony Blair's 2003 speech. It is argued that Blair's recycled expressions can help the cognitive linguist distinguish less important metaphorical expressions from more important ones for the purposes of discourse analysis. According to C. Hamilton, the afterlife of Blair's metaphors is based on the persuasive nature of emotions, or pathos. Therefore the reporting of the news sources around the world covered not only *what* Blair said, but *how* he said it, too.

The most frequently cited phrases turn out to come from the very end of the speech, i.e. those based on the WAR AS JOURNEY metaphor. The statements *I will not be party to such a course* and *This is not the time to falter* immediately following it were cited by *The Independent, The Times, The Telegraph, The New York Times, USA Today* etc. Other expressions, based on the WAR IS A JOURNEY metaphor, are the phrases *back down, pulled back, retreat and the point of reckoning*.

The cognitive rhetorical application the **conceptual integration theory** is exemplified by the explanation of novel conceptualizations in the language of preaching (A. Gomola). In this vein, the statement *You shall be witnesses to me in Jerusalem and Samaria, in Warsaw and Brussels* is explained as a blend POLISH CATHOLICS ARE SENT BY JESUS TO EVANGELIZE. This conclusion is reached on the basis of three pairs of input spaces: the first pair is DISCIPLES and POLISH CATHOLICS; the second pair is JERUSALEM and WARSAW; the third pair is SAMARIA and BRUSSELS. The generic space is JESUS SPEAKS TO HIS FOLLOWERS. The blended space is POLISH CATHOLICS ARE DISCIPLES OF JESUS ENTRUSTED WITH A MISSION TO CONVERT EUROPE.

The ideas of **cognitive grammar** were applied to the investigation of fake advertisements giving rise to the grammar of deception (Tabakowska 2012). It consists in strategic ambiguity serving as a safeguard against the potential accusation of trying to deceive and is achieved through grammatical underspecification based on non-profiled relations, cf. with the notion of profile in Langacker's Cognitive Grammar. As a result, arguments of relational lexemes are left unspecified.

According to the grammar of deception, the fake advertisement lists among the teaching staff of an educational institution the people described as "well known journalists", in the same vein the advertiser boasts of using "our own teaching materials" without actually saying whose those materials are.

The institution offers to its perspective students "internships in recognized firms" without saying by whom the forms have actually been recognized.

Similarly, the reader of the ad does not learn who it was who has tested and/or verified the teaching methods to be used.

In grammar of deception underspecification is also achieved through the use of expressions defined in cognitive grammar as designating "regions as sets of interconnected but non-individual entities". Instead of mentioning individual teachers (which might need stating their number, the professional qualifications of each of them) the ad talks about the collective "academic staff", the premises of the institution are described, collectively again as "premise resources".

In cognitive rhetoric **image schemas** are applied to the comparison of speeches given by Obama and Sarkozy at UN's Climate Change summit (September 2009) (Bonnefille 2012). The attention to the conceptual structures is substantiated by the idea that "metaphor is a tool in rhetoric, rooted in conceptualization, and itself shaped by force dynamics and image schemas" (Hamilton 2012: 220).

The rhetorical effect of the selection of nominals rests on the COUNTERFORCE schema. Obama's use of the expression *climate change* and his emphasis on the notion of hope sharply contrast with Sarkozy's choice of *global warming* which generates the feelings of fear, insecurity and threat.

The differences in the choice of metaphors based on particular image schemas are reflected in the way the climate change is framed. Obama construes it through the JOURNEY metaphor while Sarkozy calls upon the MOTION ALONG A PATH metaphor. Moreover, it is stated that Obama resorts to metaphorical networks while Sarkozy shies away from figurative language, i.e. goes straight to the point by avoiding stylistic ornament.

The comparison of those two speeches is possible only if we resort to the PATH schema exploited as source domain. In these terms, fighting climate change is conceptualized in Obama's speech as motion forward along a path seen as sustainable growth. The new actions taken to combat global warming correspond to the beginning of the journey, which starts on the day the speech was delivered. In Obama's view the American people are the travelers on board and they are joined, more specifically, by the Administration, the scientists and the engineers: *these steps represent a historic recognition on behalf of the American people and their government*; *today; a new day; a new era; than at any other time in our history*.

In the French President's opinion, the current path was taken a long time ago by all the developed nations which is achieved with spotlighting the following constituents:

- a SOURCE: the denial of global warming and the fear of the choices to be made;
- the actual Path: a succession of failures;
- a GOAL: a catastrophe.

Consequently, according to the French president, Copenhagen is the last chance to shift directions and to redefine the orientation of the path for the developed nations as well as for the rest of the world. Therefore *Copenhagen*, named seven times, is a decisive crossroads which could lead us from the wrong

path, along which we endanger the planet, to the right one. The new path is made of a compromise between a growing economy and a fight against global warming. Sarkozy emphasizes that the new path will either be followed by everybody or by no one.

8.3.2. Complex cognitive rhetorical approaches combine conceptual operations with the traditional rhetorical view.

Rhetoric offers two main constituents known from antiquity: the canonic model of persuasion and the classification of the methods of influence.

The five basic parts, or canons, of rhetoric, suggested by Cicero, include:

invention, or the choice of topic;

disposition, or arrangement of the contents;

elocution, or stylistic ornamentation;

memory and delivery merging into one – performative – stage as a result of media development. These five parts roughly correspond to the sequence in which a speech is put together.

The process of invention foresees three lines of argument: ethos, logos and pathos.

Ethos describes the way a speaker establishes himself in front of the audience.

Logos is the way the speaker seeks to influence the audience by reason.

Pathos is the way in which the speaker seeks to stir the emotions of the audience.

The lines of argument underlie different types of cognitive rhetoric.

Ethos, or author's self-representation, serves as the basis for the formation of rhetoric of effect aimed at unraveling how the author forms his image with the audience.

Pathos, or emotional influence, may be achieved due to influencing certain needs of the audience since emotions are included into the sequence "needs – motives – emotions" (Leontyev). Their link is revealed etymologically by the origin of the words "motive" and "emotion" from the common root "motion". Consequently, emotions result from meeting or violating an individual's needs: physiological, safety, belongingness, reputation, self-actualization (A. Maslow). The application of motives to the explanation of the organization of media discourse gives rise to cognitive rhetoric of needs.

The rhetoric of argumentation rests on the choice and sequencing of various arguments.

8.3.2.1. Cognitive rhetoric of effect draws on rhetorical and cognitive procedures to reveal the impression texts produce on the receiver.

This approach employs two sets of structures of sensorimotor origin:

- image schemas, i.e. recurring dynamic patterns of our perceptual experience by means of which we can make sense of that experience and reason about it (Johnson 2005);

- force dynamics, treated as a fundamental semantic category that allows us to think and talk about events and relations in the physical domain as well as in epistemic and social domains (Talmy 2000).

These structures differ in the level of detail capturing the conceptualized experience. Force dynamics, acknowledged as one of the main inspirations of the image schema theory (Dodge, Lakoff 2005), rests on the notions of Agonist and Antagonist as focal and opposing forces (Talmy 2000), while the image-schematic theory combines dynamic relations with those of perception, space and motion treating them as gestalts, i.e. coherent wholes within our experience and cognition.

The orientational order of image schemas links the salience / non-salience of referents to different modes of situation conceptualization while the force-dynamic tendency towards motion or rest signals a referent's inner disposition to activity.

In correspondence with the rhetorical canons we distinguish four stages of revealing the effects produced by a text:

- inventional, consists in reconstructing the announced idea with the help of the dictionary definition of a corresponding word;
- dispositional, captures the distribution of the units, in different sections of a speech;
- elocutionary, deals with word selection;
- performative, reveals the influence of the context on text organization.

The procedure is fruitful in application to ceremonial speeches: their peculiarity is that a speaker usually formulates the intended idea at the beginning of an address implementing it in different ways throughout the text.

Here this procedure will be exemplified by the analysis of two speeches by American President Barack Obama: the inaugural and the address before a joint session of the Congress which were delivered a month apart: on January 20, 2009 and February 24, 2009, respectively.

In spite of the largely identical contents, they produced varying effects reflected in media comments. The inaugural is regarded as *sober* by *People* magazine, as *modest* by *Time* and as *Speech that failed to fly* by *The Times*. The address to Congress is considered as *most ambitious* by CNN, *uplifting* by NBC, and *determined* by the BBC.

Those judgements are in concert with the idea of humility uttered at the beginning of the inaugural (*I stand here today humbled*) and movement at the start of the speech to Congress (*I have come come here tonight*).

The cited comments offer two different views of the president and his first speeches: modest and down to earth during the inaugural ceremony, he becomes ambitious and determined in the Congress a month later.

At the **first** – ***inventional*** – stage of analysis we undertake an image-schematic reconstruction of the meaning of the nouns *fly*, *modest*, *sober*, on the one hand, and *determined*, *ambitious*, *uplifting*, on the other. This procedure reveals that outside context the effects triggered by the inaugural are mainly linked to vertical motion.

The negative connotation of *non-flying* is based on its opposition to *flying*, which is prominent due to a referent's position over an observer. According to the

definition of the verb *to fly* as moving through the air or before the wind or through outer space (Merriam-Webster's 2003: 483) the concept of *flying* is structured by two schemas: PATH representing any kind of motion and UP placing a moving object above a conceptualizer.

The non-salience of a non-flying object results from its position on one level with a conceptualizer which is underscored in the headline from *The Times* by the unit *fail*, defined as the lack of success as a result of the loss of strength (Merriam-Webster's 2003: 483), i.e. it ascribes to the speaker the role of a DISABLEMENT source devoid of inner force.

The positive meanings of the adjectives *sober* and *modest* derive from an individual's role as the source of BLOCKAGE for the upward movement which is perceived as dangerous or inappropriate. This role is indicated by *no* in the definition of the adjective *sober*, representing a person who shows no excessive or extreme qualities of fancy, emotion, or prejudice (Merriam-Webster's 2003: 1183). The negation positions an individual as a source of BLOCKAGE for '*excessive*' and '*extreme*', i.e. the qualities that exceed what is usual, proper, necessary or normal (Merriam-Webster's 2003: 434).

In the definition of *modest*, as placing a moderate estimate on one's abilities (Merriam-Webster's 2003: 798), the semantic feature '*a moderate estimate'* represents an individual as the source of BLOCKAGE for the upward motion underlying the representation of MORE (increase) as oriented UP (Johnson 1987: xv).

The surveyed definitions suggest that the positive role of modesty and sobriety is triggered by the speaker's intention to restrict excessive upward movement. It is portrayed from two perspectives: outer, signaled by the feature *'shows'* in case of sobriety, and inner, marked by the feature *'abilities'* in case of modesty. The common experiential basis of vertical movement for non-flying, on the one hand, and modesty/sobriety, on the other, explains varying interpretations of the speech by the journalists: for one the upward movement was not sufficient while others found it quite appropriate though linked to different perspectives.

According to the definitions of the words *determined, ambitious* and *uplifting* the produced impressions derive from the movement to the final point of PATH combined with ENABLEMENT representing, in force-dynamic terms, a person's tendency towards motion and activity.

An individual as a source of ENABLEMENT moving to a certain *'goal'* which coincides with the end of the PATH schema, is indicated by the semantic feature *'having a desire to achieve'* in the definition of *ambitious* as having a desire to achieve a certain goal (Merriam-Webster's 2003: 39). A stronger intensity of the ENABLEMENT source is indicated by the features *'firm'* and *'fixed'* in the definition of the adjective *determined* as showing firm or fixed intention to achieve a desired end (Merriam-Webster's 2003: 340).

In other words, in the meaning of this word the force-dynamic tendency towards action turns out to be more compelling. The root *lift* in the adjective *uplifting* projects vertical movement onto the psychic domain. Consequently, in non-contextual terms the prominence of President Obama and his first speech to

Congress results from the force dynamic tendency towards motion which positions the American leader as the source of ENABLEMENT powerful enough to contribute to the movement to a desired end interpreted relative to the PATH schema.

The image-schematic reconstruction of the definitions of the names of various effects suggests that modest people are prone to downplay their own salience while determined individuals tend to intensify it. The textual representation of the discussed effects is more complicated due to the contextual conditions represented by the orientation modes embodied in particular image schematic blocks.

At the **second** – ***dispositional*** – stage we distinguish the main passages to be compared: *Introduction*, *Crisis* and *Crisis solution* passages.

At the **third** – ***elocutional*** – stage we analyze the methods of producing particular impressions in the enumerated blocks.

The effects of modesty and determination are created in the *Introduction* passages of the two speeches by the portrayal of the president either as a static or dynamic figure when the first person pronoun singular combines with the verbs indicating immobility and mobility:

Inaugural	Speech to Congress
[1] My fellow citizens: **I stand** here today **humbled** by the task before us, grateful for the trust you have bestowed, mindful of the sacrifices born by our ancestors. **I thank** President Bush for his service to our nation, as well the generosity and cooperation he has shown throughout this transition. [2] **Forty-four Americans** have now taken the presidential oath […]. At these moments, America has carried on not simply because of the skill or vision of those in high office, but because **We** the People have remained faithful to the ideals of **our** forebears, and true to **our** founding documents. [3] So it has been. So it must be with this generation of Americans.	[1] I've **come** here tonight not only to address the distinguished men and women in this great chamber, but to speak **frankly** and directly to the men and women who sent us here.

In the opening statement of the inaugural [1] the modesty effect results from the combination of the first person pronoun singular with the verb *stand* representing the president as a static figure as well as with the participle *humbled* denoting a person ranking low in a hierarchy or scale (Merriam Webster's 2003: 605), i.e. it additionally brings down the speaker's status against the formidable tasks facing the country.

The effect of modesty is again evoked in the second sentence which positions the speaker as the target of social COMPULSION urging him to thank the outgoing president for what he has done for the nation (*I thank President Bush* [...]).

The impression of modesty is intensified in the second paragraph [2] of the speech by the inclusion of the president into different collections of similar referents. At the beginning of the paragraph the numeral *forty-four* places the new leader within the COLLECTION of the former presidents who took the oath before him (*Forty-four Americans have now taken the presidential oath*) while at the end of [2] as well as throughout the whole speech the inclusive *we* subsumes the speaker into an infinite COLLECTION representing the nation as a whole: ***We*** *the People have remained faithful to the ideals of* ***our*** *forebears, and true to* ***our*** *founding documents*.

In the speech to Congress, the impression of determination is created in the *Introduction* by the units which in force dynamic terms indicate the president's tendency towards motion. The verb *come* portrays the speaker as a trajector, i.e. a moving figure, while the verbs *address* and *speak* position him as a source of COMPULSION for the congressmen (*the distinguished men and women in this great chamber*) and the nation as a whole (*the men and women who sent us here*).

An additional determination motif of the speech to Congress results from the president's role as a RESTRAINT REMOVAL source which makes possible the exertion of force (Johnson 1987) and in force dynamic terms reveals the speaker's tendency towards activity. In the *Introduction* the adverb *frankly* underscores the importance of the RESTRAINT REMOVAL role for the impact of the speech as a whole: *to speak frankly and directly to the men and women who sent us here*. This motif is reiterated by the verb *admit* at the beginning of the *Crisis* passage (*now, if we are honest with ourselves,* ***we'll admit*** *that for too long, we have not always met these responsibilities*) and by the adverb *candidly* at the opening of the *Credit Crisis* passage (*I want to speak plainly and* ***candidly*** *about this issue tonight, because every American should know that it directly affects you and your family's well-being*). Besides RESTRAINT REMOVAL, the *Crisis* passages of the two speeches have other signals evoking the discussed effects.

The beginning of the ***Crisis*** **passages** is marked differently in the two speeches under analysis projecting varying perspectives of the state of things: generalized and experiential.

In the inaugural the general overview of the situation is established by the combination of the inclusive *we* with the noun *crisis* while in the speech to Congress the experiential perspective is offered by the opposition of the pronouns *I* and *we* as well as by the verb *rise* which in the clause *that rises above all others* represents the crisis towering over the speaker and the audience:

Inaugural	Speech to Congress
[4] That we are in the midst of **crisis** is now well understood. Our nation is at war, **against a far-reaching**	[2] I know that for many Americans watching right now **the state of our economy is a concern that rises above**

network of violence and hatred. Our economy is badly weakened, a consequence of greed and irresponsibility on the part of some, but also our collective failure to make hard choices and prepare the nation for a new age. Homes have been lost; jobs shed; businesses shattered. Our health care is too costly, our schools fail too many, and each day brings further evidence that the ways we use energy strengthen our adversaries and threaten our planet.

[5] These are the indicators of crisis, subject to data and statistics. Less measurable, but not less profound, is a sapping of confidence across our land – **a nagging fear that America's decline is inevitable**, and that the next generation must lower its sights. **all others**. And rightly so. If you haven't been **personally affected** by this recession, you probably know someone who has – a friend; a neighbor; a member of your family. You don't need to hear another list of statistics to know that our economy is in crisis, because **you live** it every day. It's the worry you **wake up with** and the **source of sleepless nights.** It's the job you thought you'd retire from but now you **have lost**; the business you built your dreams upon that's now hanging by a thread; the college acceptance letter your child had to put back in the envelope. The impact of this recession is real, and it is everywhere.

In the inaugural the speaker's modesty is underscored at the beginning of the *Crisis* passage by the pronoun *we*, which includes the president into MASS represented by the nation (***we*** *are in the midst of crisis*), as well as by its derivative *our* in the subsequent sentences (***our*** *nation is at war;* ***our*** *economy is badly weakened;* ***our*** *collective failure;* ***our*** *health care is too costly;* ***our*** *schools fail too many*). Furthermore, the effect of modesty is intensified by the phrase *at war* in the second sentence (*Our nation is at war against a far-reaching network of violence and hatred*). This word combination positions the nation as a target of the COUNTERFORCE source which enjoys more salience due to the heavily modified complement reflecting the range of threat: *against a far-reaching network of violence and hatred*.

In the supporting utterances of this paragraph the non-salience of American and global economies is underscored by their link to the target of DISABLEMENT evoked by the predicates *is weakened* in the third sentence, *have been lost, shed, shattered* in the fourth, and *fail, threaten* in the fifth.

The impression of modesty seems to reach its peak in the second paragraph of the *Crisis* passage where the adverb *less*, belonging to scalar adjectives (Radden, Dirven 2007), the noun *decline* and the word combination *lower its sights* denote the motion DOWN, i.e. to less noticeable positions, diminishing the salience of the present and coming generations of Americans.

In the speech to Congress, the president's status is intensified in the *Crisis* passage by the combination of the first person pronoun with the verb *know* imparting the speaker with God's eye view which underscores his ability to generalize the individual problems of the citizens positioned as targets of

DISABLEMENT by the phrases *personally affected; you live it every day; the worry you wake up with; the source of sleepless nights; have lost.*

What attracts special attention in the two speeches with respect to modesty and determination effects is the specific combinability of the first person pronoun at the end of the *Crisis* passages:

Inaugural	Speech to Congress
[6] Today **I say** to you that the challenges we face are real, they are serious and they are many. They will not be met easily or in a short span of time. But know this, America – **they will be met**.	[3] But while our economy may be weakened and our confidence shaken; though we are living through difficult times, tonight **I want every American to know this:** We will rebuild, we will recover, and the United States of America will emerge stronger than before.

In the inaugural the combination of the first person pronoun with the verb *say* indicates the president's stance on the genuine nature of the crisis: ***I say*** *to you that the challenges we face are real*. The absence of any reference to the forces capable of overcoming the difficulties downplays the speaker's salience while the impersonal sentence at the end of the paragraph (*But know this, America – they will be met*) implies that neither he nor his administration is ready to shoulder that responsibility.

The more determined pledge to overcome the crisis is brought about in the speech to Congress by the combination of the foregrounded first person pronoun with the verb *want* expressing the president's wish to come into contact with every citizen (*I want every American to know this*), i.e. in force dynamic terms it reflects his tendency towards motion. This utterance is meant to show that the speaker takes over the responsibility for the situation in the country underscoring his salience against the nation as a whole represented as COLLECTION by the inclusive *we*: ***We*** *will rebuild,* ***we*** *will recover*. The impression of determination is intensified by the full name of the country (*the United States of America*) putting both the speaker and his audience into the outside – global – perspective.

(For more detailed analysis of the inaugural and congress speeches see: "Texts and Minds: Papers in Cognitive Poetics and Rhetoric". – Frankfurt am Mein: Peter Lang, 2012. – P. 243-256).

The procedures of cognitive rhetoric of effect have been successfully applied to explaining the impressions produced by a number of ceremonial speeches: responsibility in inaugural addresses of President Putin and President Yanukovych; freedom and freedom defence in J. Kennedy's and George W. Bush's inaugurals; humility in Queen Elizabeth II's Christmas greeting of 2012.

8.3.2.2. Cognitive rhetoric of needs is based on the appeal the receiver's emotions through various needs singled out by A. Maslow.

In the general rhetorical framework human needs influence the organization of news discourse at three stages:

- the choice of a topic (invention);
- the foregrounding of the contents in a news story (macrodisposition) and fronting of the nominative units in the headlines and separate paragraphs (microdisposition);
- choice of nominative units indicating event participants (elocution).

In news discourse, human needs are evoked by positioning individuals with the help of specific image schemas. Perceptual and spatial schemas underlie the choice of referring expressions while dynamic schemas position referents relative to an individual's body construing situations which mainly evoke particular needs.

The appeal to human needs is carried out at two levels: mini-textual, represented by headlines, and textual, including news stories.

Headlines, representing the ***mini-textual dimension***, occupy an intermediary position between sentence and text: they depict the main participants of an event relating them to the constituents of image schemas.

Headlines have two main components: nominative and predicative. The nominative element performs two functions: first, it portrays referents from a different perspectives related to visual or spatial image schemas; secondly, it directly denotes concepts linked to the audience's basic needs. The predicative element positions referents relative to the human body reconstructing the addressee's prior experience of acting in similar situations.

Nominals in headlines treated as mini-texts attract the addressee's attention to two hypertextual positions: page headings such as *News, Home News, Overseas News* and headline beginning.

The headline initial position attracts the audience's attention by appeal to belongingness, reputation and safety needs with some of the headlines indicating objects of human interest.

The belongingness need consists in a person's being part of a family, a group of colleagues, a social class, a nation etc, i.e. meets the desire for contact, groupiness, togetherness (Maslow 1970). It is evoked by foregrounding in headlines the nominals denoting social categories which in Lakoff's view can be treated as CONTAINER:

- gender, e.g. *Women die in US stretch limo blaze* (bbc.com/news/ 5.05.2013);
- age, e.g. *Children die in German house blaze* (bbc.com/news/ 10.03.2013); family, e.g. *Family says Pistorious not suicidal* (bbc.com/news/ 11.03.2013);
- nationality, e.g. *South African soldiers killed in SAR* (bbc.com/news/ 25.03.2013) etc.

In the international news media, the most important of belongingness need is being part of a nationality which divides the audience according to the inhabited territory. In this function the name of a country often metonymically stand for its leadership, e.g. *N Korea tells South to leave islands* (bbc.com/news/ 14.03.2013).

The peculiarity of evoking the belongingness need in the international media consists in the simultaneous appeal to several social groups which provides for the

adequate identification of a referent. BBC headlines usually begin with appeal to a country or territory as a means of sorting the audience. For example, in the headline *European men risk dying young* (bbc.com/news/ 13.03.2013) the attribute *European* indicates belonging to EU while the modifier *men* refers to gender.

The esteem need implying reputation or prestige, status, fame and glory (Maslow 1970) is evoked by common nouns and proper names.

Common nouns indicate a positive status of an individual, i.e. reflect his / her local prominence within a certain CONTAINER representing a country, nation, social group etc, e.g. *French minister quits over tax probe* (bbc.com/news/ 19.03.2013). Individual's local prominence is underscored by the modifiers which include the adjective *top*, e.g. *Top al-Qaede leader killed in Mali* (bbc.com/news/ 1.03.2013), the participle *leading*, e.g. *Leading French lawyer found dead* (bbc.com/news/ 17.03.2013), the numeral *first*, e.g. *First woman to lead US secret Service* (bbc.com/news/ 1.03.2013) etc. The number of those who suffered can be indicated in headlines by numerals, which underscore their equal status, e.g. *14 dead in Malaysia stand off clashes* (bbc.com/news/ 1.03.2013)

Besides common nouns, the status of celebrities is indicated by proper names relating people to the relative and superlative levels of prominence. The family name places a celebrity on the positive level of the VERTICALITY image schema, e.g. *Obama calls budget cuts 'dumb and arbitrary'* (bbc.com/news/ 1.03.2013). In case of a celebrity being unknown to the general public the family name combines with the apposition relating a person to a certain sphere of human activity, e.g. *Italian composer Trovojdi dies* (bbc.com/news/). Two-component names of politicians raise their status in the headlines to depict their successful activities which is exemplified by two headlines about Mikhail Gorbachev, published on the same day, cf. *Mikhail Gorbachev denounces Putin's 'attack on rights'* and *Gorbachev says Putin's inner circle is 'full of thieves'* (bbc.com/news/ 7.03.2013). Similarly, a two-component name presents Gorbachev on the day of his jubilee, e.g. *Mikhail Gorbachev honoured by Kremlin on 80th birthday* (bbc.com/news/ 2.03.2011) unlike the occasion when he criticizes the Russian president, e.g. *Gorbachev: Putin 'should change his style'* (bbc.com/news/ 8.03.2013).

Besides underscoring the importance of the ideas expressed by celebrities, the two-component names describe the improvement of a politician's state, e.g. *Nelson Mandela's condition improves* (bbc.com/news/ 31.03.2013), announcements of death, e.g. *Venezuela's Hugo Chavez died at 58* (bbc.com/news/ 5.03.2013) etc. In addition, two-component names perform identifying function, distinguishing bearers of one name, e.g. *Hilary Clinton backs gay marriage* (bbc.com/news/ 18.03.2013).

Unlike politicians, the high status of pop stars is indicated by their first names, e.g. *Desperate Eva to divorce 'cheating' husband = Housewives* star Eva Longoria (Daily Mail 18.11.2010, 11), or diminutives used for chanting, e.g. *Macca shuns high art* (Daily Express 28.11.2001, 25). In social contexts pop stars are identified by family names, e.g. *McCartney wife facing operation* (Daily Mail 9.01.2006, 23).

The *safety* need, presupposing security, stability, protection, freedom from fear (Maslow 1970), is usually evoked by foregrounding the names of the sources of threat (*alcohol poisoning, bomb, bomb blast, fire, plane crash, deadly bombings, hostages, riot etc*), e.g. *Blast wounds Syria rebel commander* (bbc.com/news/ 25.03.2013). A special signal of threat is the attribute *deadly*, e.g. *Deadly blasts at Nigeria bus station* (bbc.com/news/ 18.03.2013).

The *objects* of human interests evoking the self-actualization need are denoted by the names of rare species, e.g. *Dinosaur killing rock 'was a comet'* (bbc.com/news/ 22.03.2013), our human predecessors, e.g. *Neanderthal big eyes 'caused demise'* (bbc.com/news/ 13.03.2013) etc.

The fronted nominals attract attention before the receiver starts processing the rest of a headline forming at this initial stage a certain attitude before the predicate indicates the position of a referent construing a particular situation.

In headlines ***predicates*** indicate relations of three types – force, motion or vertical movement linked to the safety and self-actualization needs. News discourse headlines appeal to five types of safety need:

safety assurance;
safety loss, or threat;
potential threat;
safety renewal (or restoration);
safety degree.

Safety assurance consists in contributing to preserving a person's active state. It is denoted by the predicates *able, good, help, can, possible, get* evoking the ENABLEMENT image schema, or in force-dynamic terms denoting an Agonist with a tendency towards motion, e.g. *Musharaf gets bail ahead of return* (bbc.com/news/ 22.03.2013).

Safety loss, or threat, is represented by the verbs *die, kill, harm, hang* positioning people as targets of DISABLEMENT, or in force-dynamic terms, as an Agonist with a tendency towards rest, e.g. *Five soldiers die in Kashmir attack* (bbc.com/news/ 13.03.2013).

The interpretation of the verbs denoting ENABLEMENT / DISABLEMENT in terms of threat or safety depends on the general context which is demonstrated by the use of the verb *kill* in the following two headlines. The heading *Italy alcohol poisoning kills 51* (bbc.com/news/ 11.03.2013) portrays *alcohol poisoning* as a source of DISABLEMENT for 51 individuals, triggering safety loss. Conversely, the headline *Nigerian troops kill militants* (bbc.com/news/ 31.03.2013) positions *Nigerian troops* as a source of DISABLEMENT for the militants threatening the local population and in such a way evokes safety assurance.

Potential threat is signified by the verbs denoting COUNTERFORCE with the source and target having an equal status which makes it difficult to predict the outcome of an event, e.g. *Clashes in Syrian provincial capital* (bbc.com/news/ 2.03.2013). However, a stronger source and a bigger threat are implied by the events represented as COMPULSION, e.g. *UN backs tough new N Korea sanctions* (bbc.com/news/), or BLOCKAGE, e.g., *Tanzania collapse traps dozens* (bbc.com/news/ 23.03.2013).

Safety renewal consists in the return to an initial secure state that can be depicted in two ways. The first one presupposes BLOCKAGE for threat incurred by criminals, terrorists etc, which provides for social safety, e.g. *Kabul Bank chiefs jailed for fraud* (bbc.com/news/ 5.03.2013). The second type of safety renewal consists in RESTRAINT REMOVAL for the people whose freedom was unjustly restricted which implies the restoration of their individual safety, e.g. *Colombia rebels free German brothers* (bbc.com/news/ 8.03.2013).

Degree of safety is reflected by the names of negative emotions, e.g. *Anger at Hungarian journalist prize* (bbc.com/news/ 18.03.2013), or vertical motion: downward, e.g. *Biggest fall in family income for 40 years* (Daily Mail 22.03.2011), or upward, e.g. *Food prices 'will carry on soaring next year'* (Daily Mail 18.11.2010, 33).

The self-actualization need consists in human desire for self-fulfillment, becoming actualized in what we potentially are, becoming everything one is capable of, in other words, what a man can be he must be (Maslow 1970). This need is evoked by the units which denote:

- ENABLEMENT, e.g. *US pledges 450m in Egypt assistance* (bbc.com/news/ 3.03.2013), with a special case of such support as elections, e.g. *Zimbabwe votes on constitutional plan* (bbc.com/news/ 14.03.2013);
- movement represented by the PATH schema, e.g. *Prince Charles visits Jordan refugee camp* (bbc.com/news/ 13.03.2013);
- VERTICALITY, e.g. *World stock market hit new highs* (bbc.com/news/ 5.03.2013);
- COMPULSION, e.g. *Egypt must rebuild economy – Kerry* (bbc.com/news/ 2.03.2013);
- positive emotions, e.g. *UK minister hopeful of press deal* (bbc.com/news/ 17.03.2013).

Conversely, the deficit of self-actualization is indicated by the downward movement, e.g. *Lebanon's PM Mikati steps down* (bbc.com/news/ 22.03.2013), or BLOCKAGE, e.g. *Swiss bank curbs on executive pay* (bbc.com/news/ 3.03.2013).

In spite of the similar image schemas represented in safety and self-actualization needs, the verbal representation of the latter implies bigger achievements reflected by the words denoting a higher status, e.g. *Kenya poll 'a triumph of democracy'* (bbc.com/news/ 9.03.2013); the significance of the final point, e.g. *Last cardinal arrives for conclave* (bbc.com/news/ 7.03.2013); new developments, e.g. *Stunning new view of 'oldest light'* (bbc.com/news/ 21.03.2013) etc.

The relations spelled out in the headline determine the structure of news stories, reflected in the textual dimension.

Textual dimension. The interaction of the headline structure with the subsequent textual blocks of Lead and Main Event (Dijk 1985) is influenced by the motivational strategies relating the textual contents to the addressee's needs through the choice of nominals and predicates establishing relations between participants.

The strategies linked to the safety, esteem, and self-actualization needs are embodied by text-forming and nominative moves. The text-forming moves determine the fronting of the nominative units denoting event participants. The nominative moves name individual features of referents. Below you will find an example of implementing emphasis, identification, and rebuff moves.

The emphasis move determines the foregrounding of the names denoting threat both in the headline and in the body of the text, underscoring dangerous components of a situation. Accordingly, the abbreviation *GM*, representing genetically modified food as the source of threat, is foregrounded both in the headline *GM 'could harm' your unborn baby* and in the lead *Eating GM food while pregnant could harm unborn baby, a study claimed* (Daily Mail 9.01.2006).

The identification move foregrounds in the leads the referent names omitted in the elliptical headlines creating an effect of lack of information which urges the addressee to turn to the text. For example, the headline *Maternity services threatened* does not identify the source of threat named by the word combination *nationwide shortage of specialist doctors* at the beginning of the lead *A nationwide shortage of specialist doctors is threatening maternity services* (The Daily Telegraph 3.02.2006).

The rebuff move foregrounds the name of a threat source in the headline and that of a target in the body of a text. In the headline *Schoolgirl is sent home for wearing a crucifix* the verb *is sent* positions the pupil as a target of COMPULSION while the structure of the text rests on COMMUNICATIVE COUNTERFORCE foregrounding the units which represent the girl's mother who criticizes the school authorities: *The mother of a pupil sent home for wearing a crucifix has accused her school for discriminating against Christians* (Daily Mail 6.12.2005).

The strategies appealing to the esteem or *self-actualization* need are based on the PATH schema and its transformations representing succession as well as on the VERTICALITY schema. Accordingly, the text-forming move requires the foregrounding of the names of moving entities with the units in the post-predicative position denoting the initial, intermediary or final points of a trajectory.

In the text entitled *Andy Murray, the great romantic* (The Daily Telegraph 21.02.2006) the emphasis move triggers the foregrounding of the units denoting the British sportsman in the headline (*Andy Murray*, *the 18-year-old Scot*), the lead (*Britain's Andy Murray celebrated his first senior title, by jumping over the advertising hoardings and scrambling up the seating to give the girl-friend a kiss*); and the commentary blocks (*The 18-year-old Scot achieved back-to-back victories against two former No 1s*).

The nomination move indicates the levels of the social hierarchy underscoring the sportsman's achievements. His prominence is reflected by the numeral *first* in the Lead and by depicting his superiority over the former winners indicated by the numeral *one* in the commentary block (*two former No 1s*).

The self-actualization related to the VERTICALITY schema is represented by depicting in the Lead his jumping over the advertising boards and scrambling up the seating.

8.3.2.3. Cognitive rhetoric of argumentation

In the most general sense argumentation related to logos as rhetorical line of influence is treated as verbal, social, and rational activity aimed at convincing a reasonable critic of the acceptability of a standpoint by putting forward a constellation of propositions justifying or refuting the proposition expressed in the standpoint (F.H. von Eemeren, R. Grootendorst).

This definition defines argumentation as a combination of verbal activity taking place with the help of linguistic means, social activity directed at other people, rational activity based on intellectual considerations taken together with a standpoint pertaining to a specific point of view.

The **modern theory of argumentation** was developed by Ch. Perelman, L. Olbrechts-Tyteca in their highly influential book *The New Rhetoric: A Treatise on Argumentation*. The New Rhetoric is founded on the idea that "since argumentation aims at securing the adherence of those to whom it is addressed, it is, in its entirety, relative to the audience to be influenced". Perelman and Olbrechts-Tyteca rely for their theory of argumentation on the twin concepts of universal and particular audiences: while every argument is directed to a specific individual or group, the orator decides what information and what approaches will achieve the greatest adherence according to an ideal audience.

All argumentation, according to Perelman and Olbrechts-Tyteca, must proceed from a point of agreement; contentious matters in particular cannot be introduced until sufficient agreement on prior or related issues has already been established. The bases of agreement are divided into two categories: the first deals with facts, truths, and presumptions; the second with values, hierarchies, and loci of the preferable.

Both facts and truths are normally established prior to argument; these are aspects of reality that would be agreed to, for instance, by the universal audience as conceived by the orator. Neither facts nor truths provide opportunity for dispute. Presumptions, like facts and truths, need not be defended. Should the argument require opposing presumptions, however, the orator may overturn previous opinion by proving an opposite case.

Values, both concrete and abstract, may also constitute starting points, although none should be treated as universal. Establishing and reinforcing common values is necessary, according to Perelman, because they influence action and determine acceptable behaviour. Values, moreover, are normally arranged in hierarchies that can also serve as starting points for argument. An audience will value both justice and utility, for example, but an argument may require a determination of preference between the two.

The final aspect of argument starting points is the creation of "presence". From the body of ideas that are agreed upon by a given audience, the orator may

choose to emphasize or lend presence to certain elements while deemphasizing others.

Perelman outlines two ways the orator may achieve this acceptance or adherence: the first involves associations according to quasi-logical arguments, appeals to reality, and arguments that establish the real; the second approach responds to incompatible opinions through the dissociation of concepts.

The **cognitive approach to argumentation** is represented by the distinction between dialogic, or consecutive, and conflict types of rhetoric (Hamilton 2012).

In the **dialogic model** of rhetoric, claims are met by counterclaims, thereby giving the impression that rational argument means "moving" from one position to another until a final position is reached and the action of making claims and counterclaims ends, i.e. a counterclaim is made after a claim while a counterclaim can be met by a new claim in return.

In the **conflict model** of rhetoric, claim and counterclaim are made almost simultaneously. No dialogue, debate, or negotiation is possible here since claim and counterclaim are assumed to have an equal force. No side accepts any part of any claim by the other side.

The idea about the two models of rhetoric rests on the two stages of analysis: firstly, basic metaphors are singled out; secondly, they are generalized with the use of rhetoric figures akin to image schemas.

In this framework Tony Blair's speech to the House of Commons about the Iraq war (18 March 2003) rests on six positions:

1. Unilateral declaration of war.
2. UN Resolution 1441.
3. 2nd un Resolution for war
4. 2nd UN Resolution without threat of war
5. 2nd UN resolution with 6 texts and clear ultimatum.
6. War on basis of Resolution 1441 alone.

The first stage of Tony Blair's speech analysis reveals three basic metaphors: STATE as PERSON, JOURNEY metaphors, and PROPOSITIONS ARE LOCATIONS.

STATE as PERSON metaphors conceptualize the state as an individual engaged in social relations within a world community. In the vein with modern propaganda – from depicting an entire people as cruel and inferior to describing the leaders in satanic terms – this metaphor is treated as the oversimplification of a complex country concept by identifying it as a single person.

Journey metaphors are based on the JOURNEY source domain not only in politics, but in everyday contexts, too. Most journey metaphors are evoked by the use of words other than journey. In the next example Blair is referring to the six tests for Iraq to pass that were meant to compromise the final version of a second UN Resolution, one that was much hoped for yet impossible to pass. e.g. *Last Monday, we were getting very close with it. We very nearly had the majority agreement. I would like to thank, if I might, the President of Chile particularly for the constructive way he approached this issue*. In other cases, he conceptualizes that diplomatic goal as a journey by the following units: *were getting very close*

with this new proposal, and that the Chilean President approached the issue in a constructive way.

In accordance with the journey metaphor, Blair conceptualizes his policy with the help of the word *course*, implying motion along a path that is intentional rather than accidental (Hamilton 2012), at least eight times, e.g. *the course that we have set, the worst course imaginable, the course that I am advocating*. In the last example, he represents the decision to go to war as moving forward along a predetermined path.

Blair's expressions, which arise from WAR IS A JOURNEY metaphor, entail another conceptual metaphor, PROPOSITIONS ARE LOCATIONS. It may be considered a sub-category of the general conceptual metaphor that frames the speech, e.g. *the position we were asked to adopt; the public position of France, a fixed position*.

Another entailment of the WAR IS A JOURNEY metaphor is that forward motion is good, while backward motion is bad. It is claimed that moving forward for Blair means approving war, whereas moving backward means avoiding war, though it is not clear where these negative meanings come from, e.g. *turn back, back away from this confrontation, fall back*.

The second – generalizing – stage of analysis from the perspective of the dialogical and conflict models of rhetoric gives grounds for distinguishing rhetoric figures of balance and antithesis, or contrast, akin to the BALANCE and COUNTERFORCE image schemas.

In its turn, the figure of balance is represented in the speech by three subtypes which, on the one hand, leave Blair's listeners with an impression that his argument is balanced, but, on the other hand, function as elements of refutation meant to pre-empt the criticism of his distractors: isocolon, hypophora, sermocinatio. These figures represent different types of rhetorical questions: the true ones which are asked, but not answered.

Isocolon means the use of phrases of equal length and corresponding structures: *The key today is stability and order. The threat is chaos and disorder*.

Hypophora refers to questions that speakers openly ask and answer themselves: *What changed Saddam's mind? The threat of force*.

Sermocinatio refers to questions that an imaginary interlocutor asks but which the speaker truly answers: *The question most often posed is not "Why does it matter?* but *"Why does it matter so much?"*.

Blair's figures of contrast include four types: antithesis, antimetabole, dialysis, litotes.

Antithesis refers to conjoining contrasting ideas, marked at the level of a clause by *but* and *than*: *And I simply say to the house to will the ends but not the means*.

Antimetabole implies inverting the order of words that are repeated: *America did not attack the al-Qaeda terrorist group; the al-Qaeda terrorist group attacked America*.

Dialysis refers to stating a problem with a particularization of the alternatives: *The choice wasn't action now or postponement of action; the choice was action or no action at all*.

Litotes as the denial of the contrary which requires a certain amount of contextual knowledge, e.g. when we are not reasonably saying, or not an unreasonable proposition.

Argumentation as a pragmatic phenomenon is represented by **the pragma-dialectical model** (van Eemeren and Grootendorst 2004) focusing on the analysis and evaluation of argumentation in actual practice.

The main aim of the model is to enable the study of argumentation as a discourse practice and to provide clear guidelines for discussing effectively. The pragma-dialectical theory views argumentation as a complex speech act that is a part of natural language activities and comprises specific communicative goals (Whaley and Samter 2006). Aiming for systematic integration of the pragmatic and dialectical dimensions in the study of argumentation, the pragma-dialectical theory employs four principles as its point of departure:

- functionalization, accomplished by treating discourse as a purposive act;
- socialization, obtained by extending the speech act perspective to the level of interaction;
- externalization, achieved by capturing the propositional and interactional commitments created by the speech acts performed;
- dialectification, achieved by regimenting the exchange of speech acts to an ideal model of a critical discussion (van Eemeren and Grootendorst 2004).

Within this approach a number of ideas have been proposed: strategic maneuvering G. Fritz); the *Nonviolent Dissuasion Model*, which channels contention into cooperation (C. Marras, E. Euli); the concept of a *disagreement space*, revealing that the lines of reasoning in the meeting provide ways for participants to prevent the shift from initiation to acceptance and to leave the participants appearing reasonable without having resolved their disagreement (M. Aakhus, A. Vasilyeva).

The cited list mainly takes into account the pragmatic attitudes of the addressee without much attention to his abilities and knowledge. The points discussed here can serve as the foundation of the rhetorical theory of language which can answer the question of why we are telling something to the people instead of what we are telling.

8.4. Cognitive poetics

While rhetoric focuses on the persuasive function (Tabakowska 2012), poetics refers to the formal properties of the message. Cognitive Poetics has its own tradition of an approach to the study of literature which applies ideas, constructs and methodology from Cognitive Linguistics (Tabakowska 2012) with cognitive stylistics mostly focusing on literary data (Bonnefille 2012).

The definitions of cognitive poetics differ with respect to the starting point of analysis which may concern the cognitive processes, the linguistic choices or their synthesis.

The cognitive processes are underscored by R. Tsur who defines cognitive poetics as an exploration of how cognitive processes shape and constrain literary response and poetic structure (Tsur 2008). In this vein, cognitive poetics is said to be interested in exploring the mental processes accompanying the production of meaning, especially the meaning of the subtle and non-obvious kind arising from creative activity (Kwiatkowska 2012).

The linguistic devices are employed by Elena Semino (2006). For her cognitive poetics combines the detailed analysis of linguistic choices and patterns in text with a systematic consideration of the mental processes and representations that are involved in the process of interpretation.

The synthetic view is offered by Margaret Freeman (2006). In her view, cognitive poetics is Janus-faced: looking both toward the text and toward the mind. As a result it offers the possibility of developing both a true theory of literature and contributing to a theory of mind.

The research in this field crosses the borders of disciplines claiming that any compartmentalization is reductive, and only the integration of insights from linguistics and those offered by the theories of cognition and possibly other areas of expertise may lead to the broadening of our understanding of this complex and heterogeneous field.

According to Margaret Freeman, Cognitive Poetics developed from five strands:

- the first to use the term to describe his theoretical and methodological approach to poetry, drawing from studies in psychology, neuro-anatomy, and literary criticism was Reuven Tsur (1983);
- the second strand was developed almost a decade later in Tabakowska's work who applied Langacker's studies in cognitive grammar;
- work in conceptual metaphor by Lakoff and Johnson led to another strand which resulted in the conceptual integration theory;
- the fourth strand emerged from a more general interest in the relation of cognition as reflected in the multidisciplinary approaches of cognitive science to literary studies;
- the fifth strand combines cognitive narratology, text-world theory, and cognitive stylistics expanding the role of cognitive poetics to include other theoretical perspectives and all literary texts.

One of the prominent figures in Cognitive Poetics is Peter Stockwell famous for his book *Cognitive Poetics: An Introduction* (2002). Reading it one should bare in mind its criticism by R. Tsur in the journal *Pragmatics and Cognition* (2008). The founder of cognitive poetics states that in Stockwell's practice "cognitive analysis" sometimes consists in rechristening well-worn old terminology into new, "cognitive" terms. In Tsur's view, everything that is language or literature goes through the cognitive system of authors, readers, and critics. However, a discussion becomes cognitive not when it resorts to a certain terminology, but

when certain problems are addressed which cannot be properly addressed without appealing to some cognitive processes or mechanism.

Taking into account the view that cognitive poetics focuses on the cognitive mechanisms underlying the production and perception of literary texts one can presume that its present development cannot be limited to any set of methods but relies on the cognitive mechanisms known to us so far.

The overview of works in cognitive poetics reveals that like cognitive rhetoric the scholars working in this field apply cognitive tools of metaphor, blending, figure/ground segregation, scripts and schemata etc to the explanation of a number of literary phenomena: poetic creativity, cognitive architecture of literary texts, the reader's processing of pronouns in prose fiction, cognitive narratology as reflection of the role of intersubjectivity in the creation and perception of narrative texts, the use of mimesis, literary thinking, with a special attention to the analysis of poetry.

The cognitive poetic approach can be illustrated by R. Tsur's analysis of the poem "Shepherd" written by the Hebrew poet Abraham Shlonsky:

This width, that is spreading its nostrils.
This height that is yearning for you.
The light flowing with the whiteness of milk.
And the smell of wool,
And the smell of bread.

The analysis pays attention to the phrases with concrete and abstract nouns.

In Tsur's view the normal, or "unmarked", position of such nouns as *wool*, *bread* should be the referring position. Such more abstract or more general qualities as *whiteness*, *smell* should occur as attributes or predicates, e.g. *the white milk*, *the milk is white*, *the smelling wool*, or *the wool has smell*. In this excerpt, the adjectives are turned into abstract nouns while the abstract nouns are manipulated into the referring position instead of the spatio-temporally continuous particulars. The reason for selecting the 'marked option is to turn the attribute into the psychological subject, the peg on which the message is hung, the theme being the body of the message. In this extract not the concrete objects, but their attributes that have no stable characteristic visual shapes are manipulated into the psychological centre of the message.

Poetic texts like this produce an intense emotional atmosphere. The deictic devices 'this' and 'these' generate a coherent scene and suggest that there is some perceiving 'I' in the middle of the situation. The line '*this height that is yearning for you*' reinforces the presence of such a perceiving self; the verb *yearning* charges the abstraction with energy, and turns it into some active, invisible presence.

All the sentences of this stanza are elliptical, performing a deictic function: they point to the percepts of the immediate situation. *Width* and *height* are pure geometrical dimensions; but here they are emotionally charged.

Cognitive poetics in Ukraine has received a wide acclaim which is reflected in the name of *The Ukrainian Association of Cognitive Linguistics and Poetics*.

The main driving force behind cognitive poetics development in Ukraine is Olga P. Vorobyova who has outlined its main tasks:

- creation of the integral methodology of a whole text, both prosaic and poetical;
- revealing the mechanisms of forming and functioning of separate literary devices with an aim of offering their typology;
- integration of cognitive studies into the empirical investigation of literary texts.

The formulated tasks influence the research into poetical texts, the conceptual domain of the tragic, the post modern literary discourse as well as the linguistic aspects of lying.

The cognitive poetical study of ***American poetry*** reveals that the formation of new verbal poetic images is predetermined by cognitive operations of mapping, extension, and modification alongside with cognitive procedures of generalization, compression, intertextualization, and perspectivization (L. Belekhova).

The conceptual domain of ***the tragic*** as an aspect of respective worldview is formed by literary concepts of the tragic as basic units of a writer's artistic cognition conditioned by his understanding of the tragic and requirements of tragedy genre. Hence, such kind of research rests on the hierarchical structure of a literary concept with each layer modeled in a particular way: physically perceptible in the form of a frame, associative in the form of conceptual tropes, notional as an associative-semantic field (V. Nikonova).

The study of the ***post modern literary discourse*** turns to the text-forming devices of dialogicity, ambivalence, postmodern sensibility. This approach reveals principles of text formation with regard to functional types of language games: total, fragmentational, sporadical. This approach singles out a number postmodern stylistic devices serving as a background for ironical writing: metabola, desire machine, doxa, episteme, simulacra, and pastiche (O. Babelyuk).

The integrated approach to researching cognitive linguistic ***aspects of lying*** has established that the LYING concept as a unity of static and dynamic is an event of endowing a linguistic sign with sense. The study suggests a phase model of the situation of lying and the configuration model of the deceptive utterance (O. Morozova).

Questions for self-control

1. What is the main difference between Cognitive Grammar and Construction Grammar?
2. What cognitive procedures are employed in the atomistic cognitive rhetorical approach?
3. What are the rhetorical lines of persuasion?
4. What is the essence of the cognitive rhetoric of effect?
5. What are the aims of the cognitive rhetoric of needs?

6. What are the current approaches to the study of argumentation?

7. What are the main directions in cognitive poetics development abroad and in Ukraine?

Further reading

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PART 9

FURTHER COGNITIVE LINGUISTIC RESEARCH

The perspectives of cognitive linguistic research seem to lie in three directions which can be defined as specialization, generalization and convergence.

Specialization concerns the development of various cognitive linguistic strands, generalization foresees drawing up a general cognitive theory while convergence presupposes the combination of cognitive linguistic research with that of other fields.

The cognitive linguistics **specialization** focuses on deeper understanding of the existing problems and consists in the following:

- further unraveling the role of various human abilities and identifying new faculties influencing language use;
- formalization of construction grammar findings,
- looking for the underpinnings of metaphor and metonymy;
- providing experimental support for blending theory.

The study of ***signed languages*** is particularly fruitful from a cognitive linguistic perspective, since the visual modality strongly lends itself to metaphor, metonymy, and iconicity. There are some challenges to be met in this field. There are no standardized transcription conventions, and corpora of signed languages are both laborious to compile and difficult to search. The analysis of co-speech gesture can shed light on the cognitive processes, taking place during speech production. For instance, a gesturing speaker may iconically represent an object, a motor routine, or a path in space, thus revealing what conceptualization lies behind the on-going speech. Metaphorical aspects of gesture include the handling of surrogate objects – speakers literally try to hold back hostile arguments or accompany the presentation of a point with an open palm. Finally, deixis and point of view are continuously represented in gesture (Sweetser).

The **generalization** of cognitive linguistic study concerns the formation of an overall theory combining the findings of all the mainstream cognitive linguistic strands which take into account the interaction of the faculties of perception, categorization, memory and reasoning which is partially implemented by the discursive approach to language. It is believed that research into conceptual metaphors and an interpretation of affect as a fundamentally embodied phenomenon might crossfertilize each other.

Generalization seems impossible without **convergence** with other disciplines such as computer science, neurology, psychological experimentation etc. Expansion can also be seen in the fact that cognitive linguistics has broadened its scope to include issues like sociolinguistics, phonology, typology, universals, and so forth as well as studies of the interaction between language, emotions and desires.

We can also witness the convergence of cognitive linguistics with functional and pragmatic disciplines which results in the formation of cognitive-functional and cognitive-pragmatic approaches.

The cognitive-functional perspective concerns combining cognitive linguistics and more traditional functional linguistics: cognitive linguistics mainly adopts a pattern- or construction-oriented approach to grammar, while classical functionalism's approach to grammar relies more on rules or process. Contrary to arguments by cognitive grammarians like Langacker and Croft who claim that the process concept is misguided, Nuyts, through an in-depth analysis of various theoretical views and the complex relationship between process vs. construction concepts of grammar, argues that the two models are not only compatible but also represent complementary perspectives on the same phenomenon.

Cognitive pragmatics can be broadly defined as encompassing the study of the cognitive principles and processes involved in the construal of meaning-in-context. The Handbook of Pragmatics outlines a number of possible cognitive-pragmatic directions:

- study of cognitive principles of pragmatic competence, i.e. the skill to arrive at context-dependent meanings of utterances;
- revealing cognitive underpinnings of language users' ability to compute or infer intended meanings in the role of hearers and to give hints as to how to decode intended meanings in the role of speakers;
- psychology of pragmatics concerns the actual cognitive processes taking place during online construal of meaning-in-context on the basis of encoded messages, the acquisition of pragmatic competence acquired in childhood, the types, sources and effects of pragmatic disorders, i.e. impairments of pragmatic competence;
- investigation into the construal of non-explicit and non-literal meaning-in-context which concerns the cognitive principles and processes involved in processing of figurative meanings, humour and gestures;
- emergence of linguistic structures from meaning-in-context concerns the repercussions of the (repeated) construal of context-dependent meanings on linguistic structures and the linguistic system, the change of the system change under the influence of the construal of meanings in social situations.

In this vein, the relation of grammatical form to its pragmatic function is claimed to concern the following points: to what extent sentence meaning is compositional and to what extent is inferential, that is, elaborated through metaphoric, metonymic and/or pragmatic inference since "independent" speech acts are communicated by syntactically dependent structures.

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