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THE STUDY OF PROFESSIONALIZATION LEVELS IN ESAP LEARNING: COGNITIVE METAPHOR MODEL ANALYSIS

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Abstract. *This research studies professional and non-professional levels of academic discourse by analyzing cognitive metaphor models in the English written texts produced by Russian students with different competence in economics. The results of comparative analysis of specific features in metaphor models in two types of academic discourses – professional and non-professional – reveal the difference how students at different levels of study develop their professional competence in their core curriculum disciplines. At an early stage students predominantly use external associations in metaphors, and at a later stage – internal/personal verbal associations. The research results might be significant for more targeted identification of ESAP content.*

Key words: *academic discourse, professional competence, cognitive metaphor, metaphor model, ESP*

1. INTRODUCTION

The shift from the established "Anglophone" research methodology in academic discourse towards the studies of academic discourse of "other" linguistic and cultural environments marks new linguistic and cross-disciplinary perspectives (Suomela-Salmi, Dervin 2009, 1-4). They include not only the integration of research methodologies for the language of academia but also more integrated approaches to the studies of language varieties, genres, and popularization of academic discourse for different multiple reasons (Myers 2003, 266). One of the latter is the study of teaching languages for academic/special purposes, relating the types of learners' competence in specific professional domains.

Thus, the purpose of this research is to investigate the levels of professionalism in academic discourse by analyzing cognitive metaphor models in the English written texts produced by Russian students with different competence in economics. We assume that students' metaphor models reflect their professional competence in economics (depending on the number of courses/years of studying economics) and, thereby, different levels of professionalization in educational process. To meet the purpose, we propose the following outline: 1) to provide the definition for academic discourse and its professionalization, 2) to explain relevance of ESP studies to professionalization of academic discourse, and 3) to apply cognitive metaphor analysis to ESAP texts written by students with different professional competence.

Academic discourse (according to a long-standing tradition, often referred to as *scientific discourse or the language of science*) is determined as a variety of verbalized human actions: "writing articles, books, abstracts, etc. but also discussing orally, presenting our research, etc." (Suomela-Salmi, Dervin 2009, 2-3). Originally referring to the highly valued institutions of

Academie Francaise and *College de France*, it was extended with the proposed *university discourse* (Biber 2006), and in Russian tradition – *pedagogical* and *educational discourses* (e.g. Zimniaia 2000; Karasik 2004; Antonova 2007; Ezhova 2007; Oleshkov 2006). Linguists define academic discourse as a language for a specific purpose, "that of transferring knowledge, be it of linguistic, pedagogic or disciplinary nature […] Academic discourse is understood as acts of communication and/or interaction, written or spoken, mediated or not, which take place within the Academia and around it (as is the case of popularization). Academic discourse does not exist without the presence of an *I* (writer, speaker, discussant …) and an Other (his/her imagined, real or ideal interlocutor, i.e. a community). Academic is thus often based on the co-construction of theory, argumentation, interpretation, synthesis, but also dissemination and popularization. Its audience can be composed of the following groups: Specialists <> specialists; Specialists <> novices, young researchers; Specialists > general public; Specialists > the media" ((Suomela-Salmi, Dervin 2009, 5).

This definition can also be equated with professional discourse which "includes written texts produced by professionals and intended for other professionals with the same or different expertise, for semi-professionals, i.e. learners, or for non-professionals, i.e. lay people. It also means talk involving at least one professional" (Gunnarsson 2009, 5). As a result, the degree of professionalization in academic discourse depends on the professional competence of speakers. To verify this, we propose analyzing ESAP texts written by student with different professional competence by employing conceptual models, or cognitive metaphor models.

Following Alekseeva's and Mishlanova's (2002) premises of discourse as knowledge processing and verbalization, that result in creating special knowledge, there proves to be interdependence between conceptualization of special knowledge in discourse and metaphorization of discourse. In cognitive linguistics, metaphor is considered to be a universal mental mechanism that engages previously acquired knowledge (e.g. Alekseeva, Mishlanova 2002; Budaev 2010; Davidson 1990; Cassirer 1990; Kubriakova 1999; Chudinov 2005; Fauconnier 1997; Lakoff, Johnson 1980; Gibbs, Steen 1999). Therefore, to investigate different levels of special knowledge in academic discourse we find it useful to apply cognitive metaphor model analysis as a method of analyzing cognitive processes in discourse. This method enables to compare the results obtained through studying different types of academic discourse, namely, professional academic discourse (PAD) and non-professional academic discourse (NPAD).

2. ANALYSIS PROCEDURE

The sample includes twenty two essays written by 22 Russian learners of English as a foreign language in *Affiliation*, Russia: 11 essays at each of the two levels of professional competence (non-professional and professional ones). The students were given the task to write an opinion-essay on the topics of economics and finance with 250–300 word limit. According to EFL curriculum (*Affiliation* 2013; Kucherenko 2013), an ESP course is introduced to students majoring in economics so that they can develop their English skills for professional communication, that is they can reach a professional competence level. Therefore, at the non-professional level of academic discourse (NPAD) students are not yet prepared to produce texts on economic issues whereas they are capable of both oral and written professional communication in economics at the professional level (PAD).

At the initial stage of analysis procedure, in order to establish the contextual meaning we apply a practical and systematic method for identifying metaphorically used words in discourse, after Pragglejaz Group (2007).

The metaphor identification procedure in discourse includes four steps:

1. Read the entire text-discourse to establish a general understanding of the meaning;
2. Determine the lexical units in the text-discourse;
3. (a) For each lexical unit in the text, establish its meaning in context; that is, how it applies to an entity, relation, or attribute in the situation evoked by the text (contextual meaning). Take into account what comes before and after the lexical unit; (b) For each lexical unit, determine if it has a more basic contemporary meaning in other contexts than the one in the given context. For our purposes, basic meanings tend to be: more concrete (what they evoke is easier to imagine, see, hear, feel, smell or taste), related to bodily action, more precise (as opposed to vague), historically older. Basic meanings are not necessarily the most frequent meanings of the lexical unit; (c) If the lexical unit has a more basic current-contemporary meaning in other contexts than the given context, decide whether the contextual meaning contrasts with the basic meaning, but can be understood in comparison with it.
4. If yes, mark the lexical unit as metaphorical (Pragglejaz Group 2007).

The unit of analysis is metaphoric context, a minimum part of the text where the two concepts are represented based on comparison. Metaphor in this context is a unit comprised by one or several sentences, a word combination, a word, or a morpheme (Author 2008). All in all, we analyze 406 metaphoric units selected from the sample of ESAP learners' written texts.

At the second stage of this research we identify specific features of conceptual metaphor in PAD and NPAD in economics by applying a five-step analytical technique that addresses the way how the two conceptual structures (Source Domain and Target Domain) correspond (Steen 2009) and by using the method of metaphorical thesaurus modeling based on taxonomic categorization, developed by Mishlanova (2002). Metaphorical thesaurus modeling involves background knowledge and represents a hierarchical list of taxons.

Longman Dictionary of Contemporary English and Macmillan Dictionary for Advanced Learners have been used to identify basic and contextual meanings of lexical units.

At the final stage a comparative study of metaphor models in NPAD and PAD in economics is performed.

3. RESULTS

The metaphor model consists of two basic domains: **Human** and **Nature**. The first domain mentioned includes two basic metaphor models **Human being** and **Human Activity**. The other, Nature, is made up of two basic metaphor models **Animate** and **Inanimate Nature** (e.g. Mishlanova 2002; Author 2008; Poliakova, Mishlanova 2010). Being hierarchically structured, these four models contain complex taxonomic constructions with specific, individual taxons, for example, *Space and Landscape, Natural Phenomena, Professional Activity*, etc.

According to the procedures, metaphor related words in NPAD and PAD in economics were determined and categorized according to their basic meaning. A comparative study of metaphor models in NPAD and PAD in economics has been carried out with regard to the students' professional competence (see Table 1).

Table 1 Distribution of metaphor models
in academic discourse at different levels of professionalization (%)

Academic Discourse	Metaphor model		
	Human being	Animate Nature	Inanimate Nature
Non-professionallevel	24	-	50**
Professionallevel	33*	1	32

** - the most representative metaphor model;
* - the second most representative metaphor model.

As Table 1 shows, the most detailed metaphor model in the domain **Nature** (50%) in the non-professional academic discourse (NPAD) in economics has been found to be **Inanimate Nature** (50%), composed of such taxons as *Space and Landscape, Natural Phenomena*, containing lexical units: *flow, movement, stream, holes, track*.

In the following example *"Cash flow is usually defined as the money **stream** into (revenues) and out (expenses) of a certain firm measured for a certain period of time"* the word ***stream*** is not used in its basic meaning, which pertains to nature, but displays another meaning in this context. This contextual meaning is identified through setting up some sort of contrast or similarity relation with the basic meaning. After the metaphor-related word has been identified, the propositional analysis is carried out, which involves the transformation of linguistic expressions into conceptual structures in the form of a series of propositions, which are technical representations of source domain and target domain. In this example the source domain is ***stream,*** that is 'a flow of water, air, smoke etc, or the direction in which it is flowing' (Longman Dictionary of Contemporary English). There is some activity needed for the money in the target domain and some agent for the activity of stream in the source domain. Based on the analogy there is a cross-domain mapping: the target domain concept *money* is related to the source domain concept *nature*.

Below are other examples of metaphors, therein [*sic*]:

- … therefore it is important to know about **movement** of these flows (Candidate, NPAD)
- Company's accounts have a lot of **holes**, where huge amounts of money go out from the company (Candidate, NPAD)

The second most representative metaphor model in the domain **Human** (50%) in (NPAD) in economics has turned out to be **Human Activity** (26%), including *Professional Activity: works, use, activity, building, safety, dangerous*, and *Culture: play a big role, paint an accurate picture*.

At the non-professional level of academic discourse 'cash' is conceptualized as a kind of danger coming from its use. In the example *"To sum up, I should say inspite of the fact that using cash is **dangerous**, I strongly believe that cash flow is a important part of a modern business"* the contextual meaning of the metaphorically used word ***dangerous*** is 'able or likely to involve users in some risk', which is identified through setting up some sort of contrast or similarity relation with the basic meaning 'able or likely to harm or kill you' (Longman Dictionary of Contemporary English).

Below are other examples of metaphors:

- Nowadays all our world is **building** around money (Candidate, NPAD)
- Some people think that cash flow doesn't **play a big role** to a business (Candidate, NPAD)

Another metaphor model **Human being** (24%) includes the following taxons: *Physiology*, for example, *go, go out, immovable, health*, and *Psychology*, represented by metaphors *allow, help, worry*. This model is illustrated in the following sentences:

- For example, many people are convinced that the most appropriate form of money is i**mmovable** property or securities (Candidate, NPAD)
- … because, for example, investments **help** to a business to overcome some difficulties and to improve methods of management, skills of employees, etc (Candidate, NPAD)

As far as the professional academic discourse (PAD) in economics is concerned, the structure of its metaphor models is different at a deeper level of taxonomic specification, compared with NPAD. The most representative domain **Human** (67%) in PAD is comprised by **Human Activity** (34%) and **Human being** (33%). The metaphor model **Human Activity** is represented by such taxons as *Social activity, Culture, Mechanism, Politics and War, including the metaphors: tool, competitive, profitable, built, building, generate, success, perform, performance, earn, operations, provide with a lot of important information, force, play a big role, an active player, show, show the whole picture, spiral, tied up, struggle.*

At the professional level of academic discourse 'cash' is conceptualized as a kind of tool. In the example *"I think it's the main **tool** of a company operations"* the target domain concept *cash* is related to the source domain concept human activity. In this context the metaphorically used word **tool** has the meaning of 'means used by the business to function properly', which is identified with regard to the basic meaning 'something that you hold in your hand and use to do a particular job' (Longman Dictionary of Contemporary English).

Other examples of metaphors are given below:

- I think it's the main **tool** of a company **operations** (Candidate, PAD)
- Furthermore, cash flows can be used as an alternative **measure** of business's profits when it is believed that accounting concepts do not represent economic realities (Candidate, PAD)
- But the question is why cash flow **plays significant role** in the business activity (Candidate, PAD)
- Businesses require a cash flow **to function** from day to day (Candidate, PAD)
- It may **struggle** to pay immediate bills (Candidate, PAD)

The second most representative metaphor model **Human being** (33%) in PAD in economics includes *Physiology*, divided into *Vital activity (come, return, position, health, vital, stimulate), Memory and cognition (analyse, determine, define, illusion, informative, concepts, calculate, understand, identify, give information); Anatomy* including *Organs and their functions (lifeblood); Psychology* including *Human behavior (ability, help, let, carefully).*

In the example *"On the one hand cash flow is investments that **let** business develop"* the source domain is **let**, that is 'to allow someone to do something' (Longman Dictionary of Contemporary English). Based on the analogy there is a cross-domain mapping: the target domain concept *investments* is related to the source domain concept *human being*. Here is the case of personification where investments are perceived as an active agent of a business which might influence the business operations.

Other examples of metaphors are as follows:

- Cash **comes into** the business mostly through sales of goods or service and flow out to pay for costs such as raw materials, transport, labour, and power (Candidate, PAD)
- To sum up, I believe cash flow is of vital importance to a business, because it gives the necessary information for its **health** estimation (Candidate, PAD)

- It **makes possible to understand** the direction of company's funds movement to make a management decision (Candidate, PAD)
- Moreover cash flow is the **lifeblood** of business (Candidate, PAD)
- Cash flow is a company **ability** to earn cash (Candidate, PAD).

4. DISCUSSION AND CONCLUSIONS

The results of comparative analysis of professionalization specific features in metaphor models in NPAD and PAD in economics have revealed the difference which predominantly signifies for ESAP how "non-professional" students – freshmen and sophomores – learn their core curriculum disciplines. Students' continuous reference to **Inanimate Nature** metaphor model implies their seeing economics as a part of external world. However, the shift to **Human Activity** metaphor model, with years of study, denotes students' higher professional competence as this marks internal, personal development and profession-related verbal associations.

Thus, research results are of help in more targeted identification of ESAP content: at an early stage of ESAP learning the interdiscursive links of professional disciplines are to be highlighted while at a later stage social responsibility of professionals are recommended to be included into courses.

To verify research conclusions, we have compared the data with the results on academic discourse in economics, previously obtained by Author (Author 2011). The distribution of metaphor models for academic texts on economics demonstrates the same pattern as of models in PAD in this research, with the most representative model of **Human Activity** (64% – for academic textbooks and 34% – students in PAD) and the second ranking model of **Inanimate Nature** (19,8% and 33% for academic textbooks and students in PAD correspondingly). Since the metaphor model patterns coincide in the two studies, the quantitative difference is thought to be admittedly disregarded within the framework of the current research.

Nonetheless, though we consider students' professional competence as a criterion for the analysis, their EFL communicative competence as well as professional competence in economics in the native language (Russian) make up for research limitations. Overcoming these limitations, along with the study of cultural and language-specific interference in professional and academic discourses, are viewed as significant research topics in further explorations of contemporary globalized ESP/ESAP learning.

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