

УДК 81'246.3

«Monoculture of the Mind» and Cultural Diversity in Knowledge Dissemination

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Received 16.11.2016, received in revised form 21.12.2016, accepted 12.01.2017

The aim of the research is to look into specific linguistic principles of analyzing linguo-cultural identity in scientific communication. The author focuses here on cultural specificity of cognition: any cognitive activity is social-cultural in nature. So the study of scientific text as “embodied cognition” should be social-cultural as well as linguistic. It is a new object of a complex multidisciplinary study, which involves the identification of standards in academic text presenting a cognitive result in the most adequate and relevant way. A key notion of the study is the notion of culturally determined norms. It is described relating to the concept of the style of thinking. The latter is idioethnic cognitive style, which determines specific character of national academic traditions, approaches to mental task-solving and finally specific character of verbalization of the scientific result in scientific texts belonging to different language cultures. Methods used: semantic and linguo-pragmatic text analyses, critical discourse analyses.

Findings and Results: it was found that the linguo-cultural normalizing prototypes establish the rules of incorporating a scientific result in scientific continuum. The violation of cultural norms could become the factor preventing a reader’s understanding, if the reader possesses another cognitive style of thinking and belongs to another culture. In securing competitive advantage in the knowledge-based science they are a matter of utmost importance.

Keywords: style of thinking, cognitive style, linguo-cultural pattern, scientific text, monoculture, multicultural.

DOI: 10.17516/1997-1370-0024.

Research area: intercultural linguistics, pragmatics.

1. Problem Statement

The present paper aims to stress that the choice of a language necessarily implies the choice of cognitive patterns, linguo-cultural norms or in other terms – the choice of a way of thinking.

When addressing the challenged problem the following research questions are posed. Is the scientific text the phenomenon free from cultural specificity and determined by the immanent laws of cognition, not by outer factors of science?

Doesn't the character of scientific knowledge verbalized in the text per se limit manifestation of national, psychological and social characteristics? Or are extra-linguistic aspects of cognitive activity culturally determined? To what extent can the scientific text be culturally-sensitive?

The globalized Anglophone communication in science of present day emphasizes the problem of organizing a scientific text in connection with cognitive and pragmatic discrepancy of linguo-cultural norms in production and perception of a scientific text. This is possible in the situation, when a text, produced according to the norms appropriate for one academic tradition, is presented to the specialists/experts, who belong to another culture and another style of thinking. The discrepancy of cultural patterns may operate as a barrier and make readers "switch off". As a consequence there arises non adequate understanding and evaluation of a scientific result. The situation is typical when there is a growing pressure to publish scientific results in English.

The use of English as a lingua franca is assumed to be beneficial for the internationalization of science (see e.g. Gnutzmann, 2008; House, 2002; James, 2005; Seidlhofer, 2004). The use of other languages means more widely a kind of deviation, being out of the main stream. This statement is supported by the following quotation in a deliberately marked and even provocative way: "Those who wish to take a position in an international arena and enjoy international recognition have to turn from their native language to the English language which plays the role of the dominant lingua franca of the present" ("Wer sich heute erfolgreich in der weltweiten Gemeinschaft der Wissenschaft behaupten und den Sprung vom nationalen zum internationalen Parkett bewältigen will, muss sich als Autor von seiner Nationalsprache verabschieden und zur dominierenden lingua franca der

Wissenschaftswelt dieses Jahrhunderts, dem Englischen, übergehen"; Jacobs, 1997: 25).

The present study discusses the issue of different discourse patterns in organizing of a scientific text. This is related to the disagreement experienced by the subject of science between culturally specific norms of his/her style of thinking and communicative and pragmatic tasks of the opting-in strategy to incorporate the obtained result into the other subject's style of thinking – the expert's, critic's, specialist reader's. Cognitive activity reflects different evaluative patterns and norms in relation to the degree of argumentativeness, categorical manner, accuracy, information density when presenting the scientific result. The aim of the present paper is to reveal and present for further discussion the reasons of the possible disagreement. Differences between German and English patterns are the basis for the cross-cultural analysis.

2. Linguo-cultural Patterns and Styles of Thinking

If we admit that the international academic community functions exclusively in English, we admit the prevalence of English (Anglo-American) patterns for producing, structuring of scientific knowledge and, as a result, the reduction of the significance of any cultural specifics in the scientific communication. By this statement the pragmatic-social understanding of culture is stressed here. As Antos, Pogner argued (2003:396), culture is "the process of social construction", which provides social activity by modelling non-individual design of reality, offering models to follow and designing identities ("werden Kulturen primär als Symbolsysteme, d.h. als Wissens-, Bedeutungs- und Sinnsysteme konzipiert, die soziales Handeln erst ermöglichen, indem sie auf Dauer überindividuelle Wirklichkeitskonstruktionen vorgeben, Orientierungsmuster anbieten ind

Identität(en) konstruieren”; Antos, Pogner, 2003: 396).

This leads us to the notion of norm in scientific communication. The scientific text per se is closely connected with the norm. Science is the sphere of human cognition and practice where the notions of non-individual, typical aspects are of great importance. The universal aim of scientific communication is to reflect collective processes of human cognition with the help of texts. Opposition “collective, non-individual” vs. “individual” demonstrates the difference between the scientific style and other human activities. Being mostly intersubjective, the knowledge form of scientific cognition and communication in general can be contrasted with the other spheres of human activity.

Organization of the scientific text is determined by a special strategy or an “illocutionary force” of the author – the subject of cognition. By this we mean the author’s intention to follow historically-set functional-communicative standards/norms of speech behaviour determined by the need of the native speaker to be appropriately understood in the most typical situations of his/her activity, what is called *opting-in-strategy* or “*Inklusions-Identität*” after A. Assman. In contrast with the “illocutionary force” discussed above it is possible to point out an “illocutionary force” of different kind. By this we mean a person’s intention to claim him/her to be a unique linguistic identity and to stand out from a social historical group community, what is called *opting-out*, “*Exklusions-Identität*” (Assman, 2006 : 215).

In this way typical speech behavior with a predominant role of communicative-conventional traditions can be contrasted with an individual creative style with subjective-intentional tendencies of organizing text utterances.

This opposition of individual vs. collective, creative vs. governed by social and speech

standards can be most clearly seen if we compare science and art. Art is regarded as absolutely anthropocentric and it is open to individuality.

Scientific communication provides certain conditions under which human individualized creative act is revealed. To be more exact it provides framework for the subject to be governed by cognitive, socio-cultural and speech standards. The statement which could be used for general description of the multi-level studies undertaken during many years on the scientific functional style is the following – scientific communication is the reflection of typical speech behaviour of communicative partners.

One of the aims of the analysis under discussion is to understand how such aspects as typical, collective, governed by the rules, on the one hand, and creative, individual, deviated from the norm, on the other hand, are related to each other in scientific cognition and communication. The notions of collective, non-individual, standardized are related to the term of norm. Norm is understood as a pattern, rule, prototype, standard for evaluating the existent objects and producing new ones.

Thus, the discussion of the notions of norm and normative brings us to the following statements:

Normalization is an anthropocentric and human-based phenomenon. Normalization is revealed through the use of the most stable, regular means, structures, rules, forms to follow the most stable tendencies of their selection, implementation and reproduction. Norms can be found in those spheres where human needs and aims exist. Nature excluded from human activity is free from norms. Norm prescribes the borders of qualitative changes of the object.

Normalization is implemented and attested by the evaluation system, i.e. it is a social category. The evaluation system and criteria are organized under the influence of a cultural and

historical situation, therefore the measurements and borders of the norm are culturally specific. The notion of norm (standard, pattern) co-exists with the notions of non-normative, non-standard and deviated from the standardized concepts.

The cognitive pattern as a canonical way of organization of the scientific text, as a model of scientific text production is differentiated from the understanding of normative and deviated, as discussed, in stylistics and rhetoric (see, e.g. Adamzik, 2004 : 144-151). Thus, following the norm does not imply only the plane of expression, the set of specialized means. Specialization and typization of linguistic means occurs in the process of functioning of texts oriented towards its own communicative and cognitive tasks. The scientific community takes part in verification, evaluation of the scientific result and its incorporation in science. It is the scientific community that forms canonical understanding about standard forms and ways of scientific cognition, about accepted and unaccepted methods of scientific research, i.e. about what is known as the style of thinking.

Relating to science the style of thinking is described from the epistemological perspective: 'style' is regarded as a synonym to human cognitive/mental characteristics. Within such a framework conceptions about national, or idioethnic, cognitive styles (cognitive style, style of scientific thinking, Denkstil) which determine specific character of national academic traditions, approaches to mental task-solving, and finally specific character of verbalization of the scientific result in scientific texts belonging to different language cultures have been introduced.

"Every society has a cultural ecology... Styles of theoretical and practical thinking within any culture, styles of accepting or of making decisions both about the nature of the world and about what should be done in any situation, styles of perceiving and of solving within this vision and experience, not only in natural science and

mathematics but also in the aesthetic arts and sciences.... This has entailed conceptions of both man and nature, of both perceiver and perceived" (Crombie, 1994:56).

In the most general understanding which is taken here as the ground for further research it is possible to speak about the style of scientific thinking as about the way of setting scientific problems, argumentation and discussion, presenting scientific results. The notion of 'style of scientific thinking' includes canonical understanding about accepted and unaccepted forms and ways of verbalization of the scientific results, about ideal prototypes of scientific creativity (see, e.g. Weiss, 2009: 1295). As Crombie put it, "a scientific style identified an object of inquiry, defined the questions to be put and determined what counted as an answer" (Crombie, 1994: 54).

Establishing canons and standards of science is historically determined and regulated by the traditions of the corresponding national and linguistic environment. Normalizing prototypes which establish the rules of incorporating a scientific result in the scientific continuum – what can be called the style of scientific thinking – are developed as a cultural and linguistic phenomenon. From this perspective the problem of the norm can be described as a culturally specific phenomenon. It should be stressed, that cultural specificity is analyzed here as culturally marked specificity of the text, presenting by linguistic means in the text structure.

There is an extensive literature on contrastive text/discourse analysis, much of it relating to the cross-cultural opposition 'German – English' in the scientific communication (Kaplan, 1972; Clyne, 1983, 1987, 1993; Galtung, 1979, 1981, Galtung, 1985; House, 1999; Jacobs, 1997; Fix, 2002, 2006). Observations and conclusions presented in these papers largely form the ground of the analysis undertaken here. The following

statements may serve to explain some of the issues we focus on.

Thus, according to Galtung there are the Teutonic (German based), the Saxonian (Anglo-American based), the Gallic (French based) and the Nipponic (Japanese based) intellectual styles (Galtung, 1979, 1981).

Galtung concludes that the Teutonic style (as well as the Gallic) is monologue-oriented, strong in paradigm analysis. The German-style based arguments have to be derived from the theoretical principles with empirical facts relating only to a system. The Saxonian and Nipponic styles focus on description based on data analysis, dialogue.

According to Clyne's observations the German academic discourse/ intellectual style is marked by the following: theoretical orientation, tendency to textual and propositional asymmetry, non-linearity. "Digressiveness is of functional importance in texts of the German tradition. ... The Exkurs has become institutionalized". "The main functions of digression in German are to provide theory, ideology, qualification" (Clyne, 1987: 212, 227).

"Texts produced by Germans are less designed to be easy to read. Their emphasis is on providing readers with knowledge, theory and stimulus to thought. ... It is the reader's responsibility to understand a German text (to gain *Verständnis*) rather than of the writer to make it understandable (*verständlich*), a piece of German academic writing concentrates on the subject (*Sache, Gegenstand*), the content" (Clyne, 1987: 238).

According to Clyne, "some colleagues related experiences of not being understood by English speaking scholars, for instance where their ideological statements were thought to be irrelevant" (Clyne, 1991: 64). In addition, the opinion of the German scientist can be given, „Wissenschaftler berichten, dass das Publikum auf Konferenzen keine deutschsprachigen Vorträge

hören will, weil die Deutschen langweilig, kompliziert und nicht zielgruppenorientiert sprächen.“ ("Scientists report that the audience at the conferences are not eager to listen to the reports made by the Germans since the German scientists make lengthy, complex speeches not taking into account a target audience" Heinemann, 2006: 211).

Texts by English-speaking scholars are described as linear, symmetrical, 'easy to follow'. "The main criticisms of English academic texts by German speakers are that they are 'laymanlike', superficial and 'say' very little, being written from a narrow perspective.... ... The remark that an academic text is 'very easy to follow' is interpreted as a compliment in an Anglo-Saxon academic context but could possibly be intended as an insult among German academics" (Clyne, 1991: 64). Knowledge is idealized in the German tradition – that is the key statement in cross-cultural studies relating to German patterns since Clyne's works have been published. He focused on the grammatical-semantic-pragmatic phenomena in German which diverge partly from those used in English. This is one of the possible approaches given.

What may this mean in relation to the analysis of scientific communication?

The results of scientific cognition are constituted linguistically. The language makes an impact on knowledge, represented as a text. The formal aspect – form itself – is important. Texts are considered to be the forms of social cognition. Texts should be clearly understood as the forms of communicative distribution of knowledge ("die ausdrücklich als Formen kommunikativer Distribution von Wissen berücksichtigt werden müssen"; Antos, 1997: 46).

3. Conclusions

It is crucial to differentiate the process of discovering and presenting the knowledge in the

text form. The scientific text is the point where cognitive patterns and socially determined norms meet. The text reflects scientific knowledge as the result of individual process of cognition. At the same time the text should be incorporated in the system of the existent discourse after it has been filtered through receptive expectations, the assumptions of the addressee – the specialist, the expert. The text author should have the task of selecting the linguistic means which help to present the scientific result/text in an appropriate way and make it the needed product for the society. In this way ‘a text on paper’, a publication, should pass an entry test. The author of the text should be ready to adapt strategically to ‘a text in mind’ of the possible reader, i.e. to the system of receptive expectations, cultural norms, cognitive models of the reader, even if the reader belongs to a different mentality.

Previously M. Clyne posed a dilemma that the (German) scientists faced with: “Herein lies the dilemma of the German-speaking scholar, a challenge for the teaching of English as an International Language...” (Clyne, 1991: 66). To resolve the dilemma means, as mentioned above, to avoid non-linearity, asymmetry, theoretical digressiveness in the structure of the scientific text. However, the problem of the cultural norms transfer in academic interaction is seen as much more profound and dimensional. At least, it cannot be reduced to mechanical intentionally determined reduction of its pattern replaced by another one.

I pose the question about cultural specificity of the scientific text from a different angle. While many authors and publications offer to choose either an option like “publish in English or perish” or a necessity to create a lingua franca in science I stress that cultural specificity should be treated not in terms of disintegration, conflict and misunderstanding but as a necessary aspect

of an “identity of mind” which creates true multicultural.

The scientific text is considered to be a systematic reflection of both axiological reflection and communicative-pragmatic strategy of a scientist in the surface-speech structure of the text. Cognitive activity reflects different evaluative patterns and norms in relation to the degree of argumentativeness, categorical manner, accuracy, information density when presenting the scientific result. These phenomena being at the mental level are subjected to linguistic analysis as they are expressed in the texture by the linguistic markers. A variety of cognitive modes in the epistemic perspective is revealed through multilingualism. If we consider the scientific text as embodied cognition we can simultaneously obtain quick access to studying mentality and cultural identity as such relating to the processes of scientific cognition. We are able to make conclusions about the specificity of science-making through linguistic structure, through the organization of the text in this very way, not in a different one.

That is why the dilemma cannot be regarded as one-sided, like a scientist who is ‘presumed guilty’ if he/she belongs to the certain academic tradition and has to switch to a different style of thinking to be understood and rated in the right way. The approach offered enables to avoid ambiguous understanding that some languages are more suitable for knowledge transfer and others are less suitable for this purpose. I would definitely like to avoid possible ideas about such kind of presumption and focus on the understanding of the scientific text as a complex multi-dimensional phenomenon. This means rather a presumption to act as a pragmatically responsible and active recipient, that is a dialogue partner and co-thinker.

The statement is closely connected with the search of the answer to the following question: is there enough cognitive space for only one language as a lingua franca for acquiring, structuring, archiving the knowledge about the world as a whole? Economic benefits related to the dominant role of one language only do not prevent from discussing the issue of cognitive and stimulating/ non-stimulating meaning of cultural

and linguistic reduction in communication in science.

Differences between German and English patterns are only one example for the cross-cultural studies. An important area for further work will be a more detailed examination and a deeper investigation of the specific features of other cognitive styles and text strategies in structuring research articles.

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Культурное многообразие в трансляции научного знания

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Цель анализа в рамках публикации заключается в разработке базовых принципов лингвистического изучения культурно-языковой идентичности в научной коммуникации. Это осмысливается как междисциплинарная задача, выходящая за рамки узкоспециальных предметных интере-

сов. Ее решение предполагает использование методов контекстуально-интерпретативного анализа, семантического анализа, когнитивно-дискурсивного, лингвопрагматического анализа научных текстов. Научный текст анализируется как вербализованное знание, когнитивный аспект которого поддается лингвистическому наблюдению через систему языковых форм и сигналов. Системность описания обеспечивается междисциплинарным подходом, при котором к комплексному анализу привлекаются данные, полученные в науковедении, психологии научного творчества, социологии научного знания, теории речевого воздействия. Материалом для анализа стали теоретические научные тексты (монографии, статьи) в гуманитарной области знания на русском и английском языках. Рассматривается актуальная в теоретических разработках по когнитивным наукам, психологии научного творчества, когнитивной лингвистике гипотеза о существовании национальной специфики стилей мышления, или когнитивных стилей. Стиль научного мышления анализируется как часть культурно детерминированной человеческой практики, как особая ценностная форма рефлексии над наукой, задающая особую шкалу приоритетов и ограничений на выбор методов познавательной и текстовой деятельности в науке. Полученные автором основные результаты исследования заключаются в разработке понятия культурно-специфической языковой нормы в научной коммуникации, влияющей на специфику формулирования результата научного познания.

Ключевые слова: когнитивный стиль, стиль научного мышления, культурно-специфическая норма, научный текст, монокультурализм, мультикультурализм.

Научная специальность: 10.02.04 – германские языки.
