



The Mosaic of Ecological Discourse in the Light of Translation Studies and Cognition

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Abstract

Built around complex doctrinal approaches to interactions among human and natural systems and characterized by increasing dynamism, ecological scientific discourse tends to set sights on the interdisciplinarity facet of researches and has its own relevant specificities of language use that are to be paid special attention in what regards science education. In the context of cross-border scientific communication and polylogue as to environmental concerns and agenda suffused by emanation of new concepts, neologisms, and innovative theories, particular relevance is acquired by potential symmetry of presuppositional conditions, including linguistic, cultural, and scientific competencies of communicants that determine the common background of knowledge, essential for ensuring that the information is adequately sent and received, as well as the spatio-temporal limits of a given discourse, in terms of analysis, at which this article is aimed, within the frames of comparison of specificities that characterize the way in which certain parts of knowledge or human experience is reflected in language throughout the process of mediated cross-cultural cross-linguistic scientific communication, along with efficiency and scope of translator's choice and creativity. The methods of semantic and comparative analyses, as well as the method of translation, and the questionnaire method are used in this study. Ph.D. students of RUDN-university (n 78) from different countries with different mother-tongue backgrounds learning academic writing in the English and the Spanish languages participated in the questionnaire. By way of conclusion, cognitive approach to semiotic and functional potential of ecological discourse, to the structures of knowledge and conventional ways of objectivization thereof within cognitive environment, to linking or relating knowledge of field data with language competence enhance motivation of Ph.D. students to participate in cross-linguistic cross-cultural scientific communication. The practical value of this study can be relevant for language teaching, language acquisition, translation studies, intercultural communication and discourse researches.

Keywords: *translation; ecological discourse; presuppositions of scientific cross-linguistic cross-cultural communication; conceptual transparency.*

Introduction

The dynamism and extent to which the key contemporary issues in the realm of environment are addressed by scholars underlie complexity and design of the mosaic of ecological discourse. When exploring problems related to cognitive structuring and linguistic presenting of knowledge and human experience within complex processes of discourse production and comprehension in the context of professional cross-linguistic cross-cultural mediated communication, issues related to cognitive aspects of language acquisition and connected with the ways in which modern reality is conceptualized in terms of ecological models become crucial for bilingual language users, Ph.D. students, in particular, when forming linguo-cognitive thesaurus in specific professional area of scientific research.

Discussion

Interdisciplinary approach to translation entails complex issues, such as meaning construction in language, cognitive and pragmatic aspects of scientific discourse perception, comprehension and production, along with the phenomenon of intertextuality and speech act efficiency.

Special interest is acquired by spatiotemporal limits of environmental scientific discourse due to the fact that they determine specificities and limitations imposed by particular social necessities and requirements, particular world visions, and communicative situation which to a certain point reflects the views of the society as to environmental issues regarding corresponding period of time. In the basis of this process lies a sign situation and its characteristic features that both involve cognitive experiences of carriers of a particular linguistic culture as a reflection of the reality, and establish associative links in their linguistic consciousness with certain aspects and relevant details of the extralinguistic world.



Generally, neologisms encode one of the parameters of the communicative pragmatic situation, *i.e.* the sender's intention. Pragmatic sense of such lexical units (LUs) is formed in the cognitive system of a particular socio-cultural community in response to certain communicative and pragmatic needs and intentions. Thus, the addressee is presumed to have the required knowledge, views, and representations forming his cultural or scientific competence that ensure his perception of the information in accordance with the aims and goals of the communication. For example: *eco-capacity, eco-system, eco-advertising, ecological footprint, ecotarian, veganize*, etc.

Pragmatic and functional potential of such LUs predetermines their usage in qualitative situations when addressing specific features that identify multifaceted phenomena with specific characteristics. The latter play the role of pragmatic sense markers with additional cognitive effects that involve presuppositions and implications based on background knowledge which ensure adequate perception within a given perspective. For example: *eco-warrior, ecocide, eco-freak*, etc.

Material and methods

Ph.D. students ($n = 78$) of People's Friendship University of Russia (RUDN-university) from different countries (Albania, Algeria, China, Egypt, India, Italy, Kazakhstan, Kenya, Mali, the Netherlands, Nigeria, Syria, etc.) with different mother-tongue backgrounds learning academic writing in the English and the Spanish languages as a second foreign language participated in the questionnaire, 54% of them non-Russian native-speakers. The methods of semantic and comparative analyses, as well as the method of translation, and the questionnaire method were used when exploring the problem of lack of equivalence and of understanding while producing parallel knowledge structures in the target language (TL) in order to convey the same sense and ensure cognitive transparency in perception of informative content of neologisms in translation, along with contextual effects and constraints imposed on implications in different languages.

Results

Considered as a way of organization of both verbal and non-verbal information appertained to the process of transfer of semantic information, mental spaces are attributed important role in what concerns efficacy and facility for discourse cognitive perception.

According to the componential analysis, any semantic process has in its basis the following three lines or axis: (1) the one of meaning reduction in semantic components; (2) the axis of induction or augment of meaning components; (3) substitution axis, *i.e.*, substitution of one semantic component for another [1:68]. Changes in the structure of meaning, in the totality of components thereof, originate new pragmatic restrictions.

Having in its basis a referential shift similar to a metaphorical or metonymical transfer within the limits of conceptual building of a meaning, sense shaping of the LU "*ecocide*" and its usage in ecological discourse in the meaning "the destruction of large areas of the natural environment as a consequence of human activity" appeals in human consciousness to well known, stable, and particular characteristics, details, and connotations implicitly present in concept represented by LU "*genocide*".

Extension of relevant conceptual information about the object relates the latter to new circumstances, events or situations, ensuring possibilities for the modelling of a new notion of ecological reality with singular cognitive and discursive parameters that invokes predictable stereotype associations within a new pragmatic context while preserving particular world vision rooted in the background knowledge and associations with "*genocide*", reinforcing all pragmatically marked connotations thereof that facilitate sense interplay in the context of a given ecological discourse. The building up of conceptual information activates sense-generating mechanisms placing changes in the axis of substitution, *i.e.*, substitution of the seme "*humanity*" as a component of the meaning "*genocide*" for the "*eco*", that is to say, "nature", "environment" while the set of semes that form its sense stays unaltered. The two linked concepts, "*ecocide*" as a neologism and already existing and lexically mapped "*genocide*", express relevant categories that reflect experience, representations, and world visions of the carriers while fixing particular details and qualities characteristically associated with the situation, as well as attitude towards and perception thereof that are explicitly or implicitly encoded within the context of a given discourse and perspective. Moreover, cognitive transparency thereof is manifested in a short and familiar way contributing to reveal additional cognitive effects when processing conceptual information, for example: "*genocide*" ↔ "*ecocide*, (Eng.); "*genocidio*" ↔ "*ecocidio*" (Esp.).

At the same time, the English and the Spanish languages, as opposed to the Russian language, seem to show more openness in using mechanism of conceptual meaning modelling just



referred to above in LUs like “vegetarian”, such as, “flexitarian” (Eng.) - “flexitariano” (Esp.); “localtarian” (Eng.) - “localtariano” (Esp.), etc., for example, “ecotarian” that defines “a person who only eats food produced or prepared in a way that does not harm the environment: *an ecotarian cooking blog*” [2], what facilitates discourse usage thereof when translated into the TL.

It is notable that the English LU “ecotarian” in contrast to the LU “vegetarian”- «вегетарианец» eludes an equivalent form in the Russian language. The Russian language when addressing the concept “vegetarian” manifests same attitude and associations when addressing the referential situation and providing for the implicit information that is represented by same short form in the English and the Spanish languages, having in consequence a marked impact on intertextuality phenomenon and mediated discourse efficacy.

According to the analysis undertaken in this research, in what regards the LU “ecotarian”, the addressee in the TL (the Spanish language (92%)), succeeds in building up new mental space in accordance with the sender’s perception as to the described fragment of the world picture by means of the English language that grants invariability in perception and interpretation of the LU informative content and involves presuppositions and implications based on common background knowledge, e.g.:

“Diversas personas en todo el mundo utilizan el término “**ecotariano**” para destacar que la alimentación debe, ante todo, pensar en el medio ambiente ... El **Urban Dictionary** ... especializado términos nuevos creados por movimientos ciudadanos, **define** a los *ecotarianos* de dos formas... “alguien similar a los vegetarianos que pone el énfasis en los alimentos locales y ecológicos. Algunos pueden comer carne de animales silvestres, como el venado, si está disponible”. Y por otro lado, “aquel que se abstiene de comer carne que no es de caza silvestre (come ciervo, pato, ganso, jabalí, etc., pero no carne de res, cerdo o pollo criados de forma industrial, etc.).

(<https://comevidabiocom.wordpress.com/2016/03/16/eres-ecotariano/>)

In the Spanish language this model shows its efficacy both in the modelling of cognitive space in linguistic consciousness of the carriers and in facilitating an adequate actualization of relevant communicative features, cognitive presuppositions, and pragmatic markedness in ecological discourse (95%). Such kind of situation can be observed in case of the English LU “veganism” as “the practice of not eating or using any animal products, such as meat, fish, eggs, cheese, or leather” [2] - “véganismo”, or LU “vegan”, i.e., “végano”, as well as some other LUs “veganize”, “vegfriendly”, “vegy”, etc. The following examples may be given:

“**En 2018 se calcula que son más de 1.500 restaurantes en toda España los que ofrecen comida vegana, vegetariana o vegfriendly** en un mercado de 3,5 millones de personas que buscan una alimentación diferente... con un mercado global veggie, se podría elevar la facturación mundial a 5.000 millones de euros en 2020... Hace solamente 5 años era relativamente complicado encontrar hamburguesas vegetales, tofu o hummus en supermercados y grandes comerciales”.

(www.vegmadrid.es/veganismo-vegetarianismo-espana/)

As for successful sense actualization in translation, the English word combination “ecological footprint” that is used to define “the amount of the earth’s energy that someone or something uses (*I’m trying to reduce my ecological footprint by cycling more and driving less*)” [2] reveals that adequacy and intertextuality phenomenon can be achieved when using calques «экологический след» (Рус.) and “huella ecológica” (Esp.) in different contexts of mediated scientific discourse in the Russian and the Spanish languages. The representation of referential situation by ecological neologisms just referred to above promotes objectivization of both emblematic characteristics and the situation *per se* when building up potential symmetry of presuppositional conditions viewed through the prism of linguistic, cultural, and scientific competencies of communicants along with interchange of their conceptual systems. The following examples in the Russian and the Spanish languages may be given as the illustration:

«Экологический след — это площадь биологически продуктивной территории и акватории, необходимой для производства потребляемых человеком ресурсов и поглощения отходов».

(<https://wwf.ru/what-we-do/green-economy/ecological-footprint/>)

“Calculadora de Huella Ecológica Personal

El Ministerio del Ambiente desarrolló la *Calculadora de Huella Ecológica Personal* en la cual se pueden ingresar los consumos per cápita de papel, madera, comida, electricidad, combustible y automáticamente calcular el valor de la Huella Ecológica”.

(www.huella-ecologica.ambiente.gob.ec/calculadora_personal.php)



Conclusion

We conclude that cognitive approach to semiotic and functional potential of ecological discourse, to the structures of knowledge and conventional ways of objectivization thereof within cognitive environment, to linking or relating knowledge of field data with language competence enhance motivation of Ph.D. students to participate in cross-linguistic cross-cultural scientific communication. The new scientific paradigm has theoretical and practical implications in the context of ecological discourse and conceptual diversity intrinsic to human activity within the limits of cross-linguistic cross-cultural mediated scientific communication. Comprehension of principles behind how information is encoded in text and exploration of particular specificities of discourse production and comprehension in foreign languages is to be paid special attention by Ph.D. students for it grants direct access to authentic data in a particular field of science, what represents a crucial factor that has immediate impact on the quality of the research carried out by Ph.D. students.

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