# Role and significance of global bilingualism in the convergence of real and virtual spaces (within their communicative segment)

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Abstract. This paper investigates communication in its bilingual expression as a factor enhancing subjective convergence of real and virtual spaces by the sign system. The aim of the investigation is to analyze language and speech which both, under global bilingual conditions, are influenced by cross-linguistic interference and facilitate in their interaction the mechanism of coding those new concepts of reality that arise and consolidate due to the mergence of real and virtual spaces. The basic research methods used are contrastive analysis and conceptual analysis. From the practical standpoint the obtained results can be used as complementary in, say, sociological and/or psychological studies of the impact produced by the real space upon social and individual con-science. The authors come to a conclusion that global bilingualism has created a special pattern in the interaction between language and speech where the coded information concerning real and virtual spaces is conceptually metaphorized. This type of metaphorization is nothing but simulacrization leading to faulty judgments and attitudes towards reality.

#### 1 Introduction

Global bilingualism of the 21st century opens up new opportunities in contact linguistics [1, 2, 3]. This is stipulated by the fact that the key components of the theory of languages in contact, bilingualism included here first and foremost, may be viewed now from a variety of perspectives: linguistic only, sociolinguistic, psycholinguistic and neurolinguistic, pragmatic and cognitive, the latter being of paramount importance within the context of this paper. At the same time cross-linguistic interference is in our case rather an indicative phenomenon. Those cognitive processes occurring within the language partly reflect the other processes occurring within the extralinguistic reality. Thus, psychologists use a cognate notion of associative interference defined by Matsumoto as "the interference of either learning or recalling an association due to another association which is incompatible in some way with the first association" [4].

Linguistic contextualization of the above process under today's conditions of global bilingualism places even greater emphasis on the problem of studying the theory of associative interference as the one that extends to quite a number of spheres of human life and activities, particularly the sphere of communicative. Indeed, while staying unaltered in its essence, the phenomenon of cross-linguistic interference has changed in its formal embodiment, which is evidenced by the emergence of such idioms as Spanglish and other alike lingua francas [5]. It should be borne in mind that the above parallel between the two types of interference is to indicate here elements of a joint cognitive matrix of an alike functioning mechanism. These elements move even closer together in case this is in reference to such base concepts as space and time.

The concepts fixed within the language and actualized in speech not only exist in the dimensions of space and time, but also in the social [6] and technological [7] dimensions. Sure enough man originally existed in a rather limited, yet quite essential for the development of the rest, language and speech too, space-time continuum. Throughout their history, secondary dimensions were transformed because their existence has always hinged and still hinges on the fundamental dimensions of space and time which are changeable by their very nature. Hence language and speech, both emerging with the appearance of secondary dimensions, in their development actually depend the same way (or perhaps even more) on the space-time continuum like the social and technological dimensions. Thus, language contacts would hardly be possible if people did not move in space and their interaction were not characterized by its extension in time. Rise of bilingualism was thus stipulated by subjective space contraction due to the technological progress, the latter promoting and intensifying language contacts. W. Labov, in the second book of his Principles of Linguistic Change, describes those factors influencing the language and belonging to the social dimension [8]. Thus, the capitalist social system left such an imprint on language and speech under which the base concept of time is perceived as a result of metaphorization of the formula "commodity - money - commodity". However, such perception was to a great extent supported by long lasting language contacts.

Table 1. Metaphorized perception of time as a commodity

English example	Spanish example	Russian example
You're wasting my time.	Me estás haciendo perder el tiempo.	Ты попусту тратишь мое время.
This gadget will save you hours.	Este artilugio te ahorrará horas.	Это устройство сэкономит тебе много времени.
That flat tire cost me an	Esa rueda deshinchada me	Эта спустившаяся
hour.	ha costado una hora.	шина стоила мне часа.
I've invested a lot of time	He invertido mucho tiempo	Я вложил в нее много
in her.	en ella.	времени.
You need to budget your	Tienes que calcular el	Тебе необходимо
time.	tiempo.	рассчитывать свое время.

George Lakoff calls such metaphors cognitive since they serve as perception prisms for the society, hence change attitudes to various phenomena [9]. To illustrate the latter statement, we intend to analyze here the impact of global bilingualism upon the convergence of real and virtual spaces within the context of a changing attitude to the phenomenon of death.

Subjective changes in the space-time continuum and the associated global bilingualism promoted this metaphor as cognitive in the languages united by the capitalist system, which can be seen in Table 1. This hints upon interferential influence of one dimension on the other, which is reflected in different languages as metaphorization of reality. Another

testament to the fact that the above metaphorization is strongly stipulated by language contacts, may be the following: this cognitive metaphor could be traced neither in language nor in speech in Russia before the dissolution of the Soviet Union.

These days, interferential influence of technological dimension on the space-time continuum is so strong that reality is more and more becoming virtual. This happens due to the appearance and development of the new virtual space. In fact, back in 1970s George Lakoff confirmed dynamic existence in mass consciousness of such a cognitive metaphor as *the mind is a machine*. What is viewed today in both language and speech is continued interference between the technological and uspace-time dimensions. Convergence of the real space-time continuum and virtual space dimensions is also coded in individual and mass consciousness and metaphorically decoded. The reason is that interference in language and speech as metaphorization of reality through sign systems — a verbal sign system or a mathematical structure — is the only possible mind-implanted method of reality perception. The basic change characterizing the convergence of real and virtual spaces, is a still stronger "shrinkage" of the real space-time continuum and, therefore, intensification of language contacts and total bilingualization of the society in the globalization era.

In its turn, the change in the formal embodiment of lingua franca idioms testifies evident manifestations of the regularities characteristic of interference in general. It shows that nonassociative cognitive processes do not exist, hence interinfluence of associations is inevitable. If in communication this principle is most evident due to convergence of languages and intensification of contacts among the same, yet prior to the codification stage of metaphorization it might be stipulated by information surfeit and involvement of an individual into a greater number of activities, as well as conditions of their performance. Virtual space is a brand new variant of such conditions here, and it is extraordinary in its characteristics too. Communication in virtual space can be defined as perceptual-linguistic interaction associated with acts of cognition and the creation of meaning-forming systems manifesting itself in a whole set of principles, namely:

- 1) dialogueness and communicativeness;
- 2) visual-perceptual experience;
- 3) interpersonal communication;
- 4) a tool for cross-cultural dialogue;
- 5) linguistic component [10].

Analyzing the above-listed features and principles of virtual space communication, also taking into account the all-inclusive expansion of virtual space into various social and communicative spheres that earlier only existed in real space, it is logical to assume that the communicative specificity formed by it determines speech-associated, hence language-associated too, cognitive processes and changes attitudes towards various phenomena. Language and speech, being means of communication, are also means of reflection of some new reality which in its turn defines the development of these two phenomena. Speaking of language and speech as subjects within this scheme, one should again note the global character of bilingualism, which promotes unified metaphorization of reality. The analysis of language and speech as the object of metaphorization under global bilingualism enables to illustrate convergence of real and virtual spaces. This analysis is making the aim of the present investigation within the context of changing attitude towards death in the latter.

Ony special function in the interaction between language and speech as subjects within the bilingual system of communication in contacting real and virtual spaces is performed by cross-linguistic interference in speech. Being affected by the situation of bilingualism, it leads to the appearance and development of various lingua francas depending on the dominant norm-exporting language (a term introduced by W. Labov). Among these of special importance for the present investigation are conceptual norms first and foremost

formed at the lexical-semantic level. The interferemes that influence a second lingua franca, turn into a norm due to a stable interferential picture.

In fact, any language under specific extralinguistic conditions may perform the functions of a full-fledged lingua franca, and today we have a lot of examples confirming this statement: such are English, Arabic, Russian, French and other languages [11, 12]. In spite of this, a "classical" lingua franca is characterized by a somewhat different specificity: it implies vaster, deeper and wider penetration in the communicative system of the society. Under existing conditions, from out of all the idioms that can be rightfully qualified as lingua francas, English as lingua franca fully conforms to the said specificity.

In virtue of a special interferential picture existing in a "classical" lingua franca, there is no language (it being opposed to speech in Saussure's model) preserving and consolidating norm in speech. As a matter of fact, norm is transformed, and it transforms the life of the society and its ideas of reality through speech as a thinking tool.

Topicality of this investigation is in the need of a deeper study of the theoretical component of the phenomenon of convergence of real and virtual spaces under global bilingualism, as well as the influence produced on the linguistic consciousness, both individual and social, of cross-linguistic interference, and search for the regularities in this process.

### 2 Materials and methods

To carry out the practical part of the study, we have analyzed utterances selected in the communicative segment of virtual space, the central feature of such utterances being metaphorization of individual's inner world in software terms. The object of research in this material are lexical-semantic interferemes, i.e. minimum interference units, belonging to the lexical-semantic level of the language system. Interferemes, while they pass to the second lingua franca (Spanglish in our case), get fixed in this idiom as norms under a reversal impact of contacting dimensions and then lead to integration between real and virtual spaces by way of unification of metaphoric perception of the space-time continuum as an idea taken as a whole.

Perception of space seems to be the most significant one because it is the one that makes the basis of perception of reality: it is naturally linked with time and, above all, in many languages it is semantically linked with time [13, 14].

A combination of two types of analysis, contrastive [15] and conceptual [9], makes the basic research methods. This enables to reveal traces of interference at the conceptual level through the lexical-semantic level. Availability of such traces, interferences, is linked with the bilingual medium, the latter stipulating convergence of real and virtual spaces.

Contrastive analysis of interferemes in the virtual space communicative segment enables to reveal similarities and differences in the norms of the lexical-semantic levels in the involved languages as compared to the real space. This is done with the aim of detecting availability of elements of metaphorization and other conceptualization of reality since the source of cross-linguistic interference is specifically discrepancy of norms belonging to different languages. Conceptual analysis affords ample opportunities for the interpretation of the data obtained during the analysis of the units referred to the lexical-semantic level.

#### 3 Results

Below can be seen a comparative table with utterances in two languages, English and Spanish, which clearly shows metaphorization of language consciousness in the terms applied in the field of *software*. In some cases, the fact that the result of such

metaphorization is global bilingualism, cannot cause any doubt: to convey conceptual senses speakers probably use different varieties of calquing, the latter being the major formal type of cross-linguistic interference. Hence the human body under such metaphorization must be perceived not as a "mortal" biological organism, but rather as a *hardware* with its own peculiarities and features.

Table 2. Metaphorized perception of reality in the terms of software

English example	Spanish example	
Semantic calque: borrowing the transferred meaning of a lexical-semantic unit of the source language of interference		
Moving your body can disconnect yourself from the dream you were probably having just minutes ago.	Cómo "desconectarse" de WhatsApp sin desconectar tu celular de internet (article title)	
Hack Your Mind: Unleash the Hidden Power of Your Subconscious Mind, Harness Brain's Neuroplasticity, Learn How to Bend Reality and Become Limitless (book title)	Aprende a hackear tu mente para mejorar tu estilo de vida (YouTube video title)	
Word-formation calque: morpheme-by-morpheme translation of a lexical-semantic unit of the source language of interference		
Are you going from one thing to another without a pause to decompress or reboot your brain?	El zumbido de la cafeína revitaliza instantáneamente tus reservas de energía agotadas y reinicia tu cerebro.	
Update yourself with global activities (article title)	Actualiza tu software mental (article title)	

#### 4 Discussion

Thus, global bilingualism and a generated "classical" lingua franca with its specific interferential picture promote the following tendency. Signs develop metaphorization of their originally (real) representing character not only at the cross-linguistic, but also, quite consequentially, conceptual level. This happens because both language and speech in their bilingual expression are a coding tool distributing, diversifying in intra-linguistic and unifying in cross-linguistic relations and dynamicizing those conceptual norms resulting from convergence of real and virtual spaces. Since the results of the present study are obtained by the example of concepts coding the perception of individual's inner world in software terms, hence forming the dynamic conceptual norm of perception of death as some reversible process, they confirm the data obtained by the scholars of the University of Barcelona. Using the technology of virtual reality to study mental implications of out-ofbody experience (OBE), their influence on death anxiety among other things, they put forward the following hypothesis: "If we could place people in a situation illustrating a possibility of their mind to stay out of their bodies, then this could offer them implicit evidence (need not evident conviction) of the fact that out-of-body life is possible, which would therefore lessen their death anxiety" [16].

In most cases man is unable to overcome the information stream, hence man has no other choice but to try and search for a changeable conceptual norm.

According to M. Poster, expansion and world-wide penetration of (bilingual today) communication in virtual space has crucially changed social ties. This scholar introduces the notion of "information modes" by which he understands various types of symbol exchange creating a definite social order pattern. M. Poster proposes the following periodization in the development of information modes: 1) the stage of communication by way of oral face-to-face language expression where signs correspond to the conventional

disposition of social relations and steady lifestyle at which a personality is linked with a definite group; 2) the stage of communication by way of written language expression where signs represent definite concepts and the individual acts reasonably and responsibly; and 3) the stage of communication with electronic innovations where signs obfuscate the reality losing their denotative essence, and the individual feels difficulty in telling reality from metaphors [17]. As is shown by the results of this study, this process acquires special importance under global bilingualism where the sign, instead of denoting definite people, articles, actions, features, etc., is combined in individual and mass consciousness with some flow of the signified.

In fact, M. Poster's concept testifies that interference penetrates all cognitive processes, language and speech included, starting with their meanings and up to the signs shaping them. Thus, under the conditions of global bilingualism it would be worth speaking of the intensification of a bilingual informational flow as one of the major reasons of such changes. A consequence here is decentralization and dispersion of personality that constantly changes at a new communicative stage and is involved in the process formation and, synchronically, establishment of a variety of identities.

Convergence of real and virtual spaces leads to such a reflection of the reality in the language consciousness of a bilingual at which, in the terms of Jean Baudrillard's model, there occurs endless circulation of images and signs that does not permit truthful information. The French scholar introduces the notion of simulacre (image, analogy) denoting "a sign that has turned into a virtual object" [18]. Baudrillard assumes that the meaning of signs is so much "mixed up" that many such signs fail to correspond to the reality. This again refers to metaphorization of the reality that distorts the worldview that had existed before virtual space communication. The notion of simulacre is used by Baudrillard to characterize quite a wide range of phenomena from metaphysical problems to social life.

In our opinion, it is metaphorization of the worldview supported by multifaceted and integral effect of global bilingualism, that leads to what is named by M. Poster "the stage of electronic communication" and by Baudrillard "a simulacre". Metaphorization means simulation resulting in the replacement of the real world by a system of symbols. Modernity for Baudrillard is connected to total simulation of social and cultural phenomena: power, information, communication. Some conceptual metaphors have so deeply penetrated human life that their perception is now weakly recognized or totally unrecognized.

#### 4 Conclusions

As one can see from the above, language and speech under the present conditions of global bilingualism function as a converter of integrated information from those being in the state of convergence, hence contacting dimensions, the most significant of which from the perspective of general essence are real and virtual spaces. Using elements of two languages in coding information under the conditions of convergence of real and virtual spaces, man exposes those conceptual norms that have hardened at the previous stages of information mode development to dispersion and simulacrization.

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