

IMPACTUL POLITICILOR LINGVISTICE ASUPRA TERMINOLOGIEI / TRANSLATORULUI

The Impact of Linguistic Policies upon Terminology/the Translator

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Abstract

The research aims to study some of the aspects regarding the relationship between current language policies and the condition of the terminologist/translator in relation to science, culture, national languages - in the context of globalization - the relationship of the translator with the recipient and the user, etc. The assertion the study starts with is that the domain of terminology is a frontier at the confluence of science, culture, linguistics - on the one hand - and society, the policy strategies of development, etc. on the other.

Keywords: language policies, terminology, translation, culture, globalization

I. Acceptions of the concept. The domain of terminology is a frontier at the confluence of science, linguistics and culture. Its interdisciplinary character incorporates besides the limited linguistic perspective and the logical one (through the importance given to the conceptual side), the perspective of specialty (regarding the domain of knowledge the corpus of which it studies) and, lately, the perspective of planning in linguistic policies. In its intrinsic acception, linguistic policies involve the sanctioning of a terminology by an authorized body. In the ISO (1087/2000) acception, terminology is, besides: 1. “a set of designations belonging to one special language” and 2. a science that studies the structure, the formation, the development, usage and management of terminologies in various fields. In Romania, the process of standardization in the field of sciences was initiated through CTSE by the Romanian Academy. The formation, the development and the management of terminologies has imposed other two perspectives of extrinsic nature to approach the phenomenon: 1. on the macro level, the approach of the investigations considers the exploitation of the influences manifested by the language and the great contemporary cultures upon the other idioms, as well as by the study of elements that maintain a language unaltered (developing a specific term base, the adaptation of the stylistic register to the contemporary cognitive field, the modernization of the vocabulary.) The struggle to maintain identity and the promotion of values is a phenomenon that has been present in the Francophone world for quite a long time. 2. The second direction - extended to all humanities subjects is connected to the safeguarding of the official languages of the new states, generally the states in South-East Europe (especially from the Republic of Moldova and Transnistria) especially. The

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timeliness of this research approach has as its starting point the reconsideration of some socially prominent phenomena (bilingualism, trilingualism, diglossia).

II. Theoretical premises In Eugen Coșeriu's view science finds its expression in language in order to objectify its own contents. It becomes a necessary condition, nevertheless it exceeds it through the fact that it revises based on objective criteria the language boundaries, reaching the things themselves (Coșeriu, 1988, p. 69-70; *id.*, 1967, p. 142). For the scientific domain words are simply "substitutes" of "things" which go beyond any classification operating in linguistics and in the study of languages. Terminology reorganizes through Drozd's triangle, the well-known triangle used in semantics (referent-signifier-signifies), adopting an object-concept-sign relation. It is a conceptual system situated at the crossroads of three types of elements: entities (under the laws of nature), concepts (grafted laws of thought) and linguistic systems (under the laws of language). Conceptual systems are cutouts of reality, they differ from one culture to another so that the ambiguity of some terms may affect the culture itself.

Terminology is a conceptual microsystem, with a partially closed and partially open paradigm; it is characterised by stability due to the universal character of concepts and their traits to remain immutable in relation to language (Cabre). Hence two characteristics derive: the tendency to internationalize special languages and the stability of equivalence in translation. The common denominator of multilingual terminological works in the medical or the economic domain is a good example for the universality of the concept. As a stable microsystem, terminology is different from the system of the language in general: the stability of the terminological systems is a matter of synchrony; the terminologist selects consciously, planned, subjectively and in a motivated manner a terminological unit from a stable linguistic system for longer time-cycles. An already established language is the product of historical factors, while terminological systems are the products of cultural and civilization factors; the slow evolution of the language system is determined by its social function; the stability of terminological units is required by the conceptual cohesion of a domain, by method, by the paternity of the concept, by the criterion of mono-referentiality. In medical informatics, for example, the emphasis is on networking terminology. For most terms existing in the Romanian language the original English writing and pronunciation is used. This also applies to French terminology, in which almost all terms have been borrowed from the English language, almost unchanged. In defining certain terms and expressions the usage of abbreviations and usual acronyms is preferred, full names not being used in practice: antivirus (En./Fra./Rom.); backup; DVD (acronym for Digital Versatile Disc); hack; Java (general-purpose programming language); voxel; Windows (DM, 2003), etc.

Conceptual stability - plurimorph in itself - not always has a beneficial impact upon the terminologist/translator, whom it limits its freedom of creation - in the selection of equivalents. It is bound to remain in the system, reporting its holistic activity to three vectors: 1. *in relation to the user*, it respects the general principles of quality: accessibility, timeliness, reliability; 2. *in relation to the recipient* - the contemporary society - it respects the

categories of identity: information identity, linguistic group/branch identity and the matrix identity. 3. *In relation to a cultural code*, the terminologist/translator is subject to the same system requirements by: 1. multilingual competence; 2. the impossibility of detaching from knowing the structure and the spirit of the language; 3. the terminologist/translator has a linguistic culture, in general, and respects the identity of an idiom, especially; 4. unlike the translator who shows creative skills, the terminologist has knowledge in the scientific domain. An extracurricular competence of the terminologist is to be able to work in a team. Eugene Nida believes that translators must master at least three languages, that is their mother tongue and two foreign languages. If only two languages are known, the correlations may be done mechanically, but in the case of three known languages the learners realize much more clearly the implications the different rendering of the same text gives (Nida 2004: 139).

III. The linguistic culture of the terminologist/translator involves besides the multilingual dimension, practical competences regarding the matrix and the structure of one particular language. An idiom provides elements to be conceptualized, reinvested from the semantic point of view, but also a series of possibilities to use them: the vocabulary of anthropology, for example, uses a great deal of terms (partially, interdisciplinarily) extracted from the main thesaurus of the Romance languages: Fr. *race*, Fr. *language*, Fr. *culture*; Rom. *casă*, Rom. *boală*, Rom. *familie*, Rom. *putere* etc. The matrix language gives paradigmatic models of structure, *radicle-type* (historical roots) formants, affixes, affix-like word formation patterns which imply quasi-equivalent forms, maintaining the consistency of the expression on the panlinguistic level. There are patterns through which a lexical and semasiological coherence is given, on the one hand, while on the other the matrix structure identity is maintained, prototypical, specific of the academic style imposed by classical and modern sciences (resulting from the interdisciplinary and transdisciplinary research).

The terminology of French source adds the model of overcomposition, which has become particularly productive. Patronyms, eponyms, initials, brachygraphic expressions are ubiquitous in patterns of English origin and differ from the oriental cultural heritage (see Imarah Muhhamed, the Muslim culture) for example, which emphasizes the use of precise words and the strict avoidance of synonyms. Here are some areas the unity of which is conferred by the matrix models which have become canonical in the Pan-Latin terminology: mathematics (see Fr. *lemme*; En. *lemma*; It. *lemma*; Sp. *lema*; Port. *lema*; Rom. *lemă*/ Fr. *arithmologie*, Rom. *aritmologie*, Eng. *arythmology*); astronomy (see Fr. *météorite*, En. *meteorite*, Rom. *meteorit*; Fr. *planète*, En. *planet*, Rom. *planetă* /Fr. *astronomie*, En. *astronomy*, Rom. *astronomie*; Fr. *astrophysique*, En. *astrophysics*, Rom. *astrofizică*); physics (see Fr. *quanta*, Rom. *cuantă*; see Fr. *entropie*, En. *entropy*, Rom. *entropie* / see Fr. *aérodynamique*, En. *aerodynamics*, Rom. *aerodinamic*); chemistry and pharmacology (see Fr. *chymie*, En. *chemistry*, Rom. *chimie*/ Fr. *micro-élément*, En. *microelement*, Rom. *microelement*); biology (see Fr. *cellule*, En. *cell*, Rom. *celulă*); sociology (see Fr. *sociologie*, En. *sociology*, Rom. *sociologie*); anatomy (NA: *cavum*;

mediastinum; see Fr. *cavité*, En. *cavity*, Rom. *cavitate* Fr. *médiastin*; En. *mediastinum*, Rom. *mediastin*); economy (see Fr. *autoconsommation*, Rom. *autoconsum*/ Fr. *analyse macroéconomique*, En. *macroeconomic analysis*, Rom. *analiză macroeconomică*; Fr. *accepter une offre*, En. *to accept an offer*, Rom. *(a)accepta o ofertă*); philosophy; medicine (see Fr. *veine*, En. *vein*, Rom. *venă*/Fr. *angiomeuromyome*, Engl. *angiomyoneuroma*, Rom. *angiomioneurinom*), etc.

IV. **The relationship of the terminologist with the user**/translator remains the most complex type of determination due to several reasons: the concrete need to the contemporary society in the field of terminology; the coverage of some avant-garde concepts or domains of science; interpersonal communication, the relationship with citizens/specialists from the member states of the EU. In the conception of J. Gallais-Hamonne there exists in the special languages *reference-concepts* borrowed from the everyday language and *reference-concepts particular to that science*. *The reference-concepts* are part of the knowledge base of any language community. If the reference to the signified concept is given explicitly by the scientific text, it becomes a *reference-concept* particular to that science. The qualities of accessibility, timeliness, reliability of terms claimed by the user are unproblematic if we refer to the language of the domains of traditional human knowledge (economy, ethnology, anthropology, mathematics, anatomy). The avant-garde domains and subdomains of science, fashion, advertising, cinema, economy makes use of a large corpus of terms (usually foreign-tongued) which lack transparency. We cannot speak only of terms with English etymon, even if these are predominant. The term *baïssier*, for example originates in the Romanian language (where it was not adapted from the formal point of view) from the French *baïssier* (m). Spanish uses the adapted from *bajista* (m.), while English *bear*. In the French and Romanian economical terminology the term *averaging* has been spread, originating in the English economical language, used in the Spanish languages as well, even if the terminology of this idiom is enriched by the quasi-synonym *promedio variable* (m.) respectively, *promediación* (f.). Other concepts have not found an equivalent in the Romance languages, adopting functionally the English term. Here are some examples from the domain of finance and banking: Fr. *dumping*, Rom. *dumping*, Sp. *dumping* (see En. *dumping*); Fr. *ex ship*, Rom. *ex ship* (see En. *ex ship*); En. *ex works*; Fr. *hardware*, Sp. *hardware*, Rom. *hardware* (see En. *hardware*); Rom. *kaffris*, Sp. *kaffris* (see En. *kaffris*); Fr. *netting*, Rom. *netting*, Sp. *netting* with terminological synonyms in the national language: *compensación/ liquidación por saldos netos* (see En. *netting - management technique*); Fr. *banque (f.) offshore*, Sp. *offshore bank*, Rom. *offshore bank* (see En. *offshore bank*); Fr. *benchmarking* (with the terms *cvasisinonimi référence(f.) au meilleur/ test de performance*), Rom. *benchmarking* (see En. *benchmarking*); Fr. *output*-with synonym *sortie*), Sp. *output* (with synonyms in the national language *salida*), Rom. *output* `output` (see En. *output*).

Synonymy - a way to accessibility and update. The proliferation of synonymy and polysemy in special languages is often conceived as a rare phenomenon, with an accidental character (Nistor 2000: 44). Synonymy is a growing phenomenon, which

exceeds the imperative of being accessible to the user. Looking at the issue of synonymy from the point of view of humane knowledge, Yves Gentilhomme (1984:29-37) believes that maintaining monosemy in special languages is extremely difficult - in terms of diachronic alterations and the contact between special languages. Loic Depecker (2002) studies the special terms from the point of view of figurative meanings, of polysemy and metaphoric nuances. In 2002 Angela Bidu-Vrânceanu noted that despite the closed code character shown unequivocally, monoreferentially, in a non-ambiguous and implicitly decontextualized way, the role of the context is many times and in various ways, very important (A. Bidu-Vrânceanu, *Terminologiile științifice*, 2002:9). From another point of view, synonymy is not only a question regarding paradigmatic relations - with implications regarding the semiosis of terminology or discourse, but a subtle issue of language planning - in the service of the security of national languages, of “small” languages: the terminological synonym highlights - in a discursive way - the concept, it updates the elements of identification of a linguistic code ensuring the accessibility of the user especially in the case of patronyms: s. Charcot-Weiss-Baker- Rom. syn. s. *sinus cavernos*, Fr. s. *du sinus caverneux*, En. *cavernous sinus* s; // Lowe syndrome - syn. *oculocerebrorenal syndrome*; s. Barré-Liéou-Rom. s. *simpatic cervical posterior*; // Aarskog syndrome - Rom. syn. *faciodigitogenital syndrome*; // s. Aicardi- Fr. *des spasmes en flexion*, En. *nodding spasm*; s. Bywaters – Rom. s. de *zdrobire*/ *sindrom de strivire*; etc.

There are noticeable differences in terms of resistance of the different domains to synonyms. Unlike technical language and that of informatics, other domains show a greater openness towards this aspect of paradigmatic relations. Generic terms, basic terms can be quasi-equivalent from an epistemological perspective, generating a variable typology - from the *homosignificant synonyms* (farmacie, potică, drugstore) to *temporal synonyms* (bolnițe, boală), *geographical ones*, etc. In the following we will apply the above on the medical domain, where many terms update through this type of paradigmatic relation the classical or Romance linguistic units and matrices. There are contexts in which synonymy is a *sine qua non* condition of the concrete communicative behaviour. The approach can be synthetic (Isaacs syndrome - Rom. syn. *neuromiotonie*; Abderhalden-Fanconi syndrome - Rom. syn. *cistinoză*) or analytical: Schwartz-Bartter syndrome - *sindrom de secreție inadecvată de hormon antidiuretic*; Naffziger syndrome - syn. *sindromul scalenului anterior*; Chotzen syndrome - Rom. syn. *acrocefalosindactilie tip III*.

The Romanian terminology uses, for example, 12 heterogeneous terms related to *lupus*: boală lupică, lupus sistemic (synonyms), lupus eritematos discoid, lupus eritematos cronic, L.E.D., anticorpi anti Sm, celule lupice, lupus eritematos diseminat, lupus eritematos acut diseminat, ulcerăție tuberculoasă, boală mixtă a țesutului conjunctiv, etc. Kocourek (1982: 166) identifies in the French medical terminology no less than 27 heterogeneous synonyms to name a single disorder of the spleen. The medical language is the least subject to the rules of unambiguity due to several factors: the first would be that of secondary semiosis which is in full propensity, in the research regarding the field, even if the universality of the concepts represents an important theoretical prerequisite. The

second factor is connected to the practice of translation, where the different languages propose their own vision. These phenomena can be explained due to the fact that the medical domain has a significant social and cultural charge. In many cases contamination has the matrix at its origin. These two types of contamination generate together with the epistemological status of the medical science a different degree of structuring of terminology.

The relative and absolute equivalents need certain conditions to be accepted: 1) *of conceptual nature*, primarily: E.g. *reație antigen-anticorp* (Fr. *réaction antigène-anticorps*; En. *antigen-antibody reaction*) – Romanian synonym *reație de imunoprecipitare, reacție la precipitare*. 2) *based on the synchronic and diachronic changes*, on the level of the medical nomenclature (NA, biochemistry, medical informatics); 3) *of etymological nature* (primary linguistic source, national languages, neological neo-Latin loans, English/American, etc.) The patronyms of Latin/Anglo-American origin are the generators of synonymy in national languages, both at the level of discourse and nomenclature. The phrases that denote formulae, medical tests, reactions maintain - in general - the parallelism between the source unit and/or the term used to decode the eponym: Sjogren syndrome, syn. “dry eye syndrome”; Griscelli-Prunieras disease - syn. silver hair syndrome, etc. This type of synonymy is an illustrative phenomenon for the relations the terminologist establishes between the lexicon and the discourse. The report between representation and the conceptual system of synonymy has consequences upon cognitive accessibility. Besides equivalence relations, many of the patronyms could remain obscure or misinterpreted.

Synonymy knows a great creative capacity by making use of metaphors. The concepts constantly associated to the terminological metaphor add something from the spirit of a certain language. From the functional point of view it ensures the transparency of significance at the level of one idiom. The current terminological system is not only culturally determined and anthropocentric (organized according to areas of knowledge and general human values) but follows the available patterns of the vocabulary it is part of. The transparency of the terms is ensured by the metaphor - an expression of the exterior world with its representations, of time and space, but even more so, that of man. Through the metaphor the scientist thinks, knows and reconceptualises, while the phenomenon defines science ever since the dawn of modern European culture. The consequences are not only cognitive, but also discursive: at the lexical level the word is selected (from the common language, the general vocabulary, etc.), conceptualized, and fixed as a normative unit. The synonyms of “silver hair syndrome” or “flying flies” (*myodaesopsia*) - formed through metaphoric transfer - are characterized through a complex semantic structure, taking into account the fact that the traits that have determined their selection are included in the concept of the source-term. The metaphorical significance reflects a conceptual component in another stylistic register considered essential by the researcher from the point of view of communication: Swan syndrome - blind spot syndrome; Gopalan syndrome - syn. burning feet syndrome;

Bernard Soulier syndrome - syn. giant platelet syndrome; Holtermuller-Wiedemann syndrome - Rom. syn. the cloverleaf skull syndrome.

The phenomenon of metaphoric synonymy is general. In the English language *advancement* is used with the meaning *progress* in everyday language as a result of metaphoric transfer, it has the meaning of *movement* and it can be defined as “*a surgical detachment, as of a muscle or tendon, followed by a reattachment at an advanced level*”. The metaphor term highlights in another stylistic and functional register a detail (usually a fundamental one) of the concept within the source-term. Selecting the metaphorical equivalent of the name is carried out in addition to objective factors - the stability of the relationship between referents, the pragmatic dependence of certain cognitive stereotypes - and depending on the degree of linguistic concreteness. The prolix character and uneven development of medical terminology conditions the appearance of synonym doublets, usually, in the mother tongue (the term *febra pappataci* having the variant “febra de trei zile” ‘three day fever’). The English-origin patronyms have a special situation in the national languages, which differs from one language to another. The medical language equates these concepts through metaphors. The much more rigorous economic language uses terminological metaphor to a much lesser extent. This is related to temporal coordinates: Rom. Vinerea Neagră (En. Black Friday; Fr. le Vendredi Noir; Sp. el Viernes Negro) - metaphor term to describe a major stock market decline; Rom. Joia Neagră (En. Black Thursday, Fr. Le Jeudi Noir; Sp. El Jueves Negro); the concept referring to the most widely known base index which reflects the average change in exchange rates at the New York stock exchange has become *Dow Jones* (the synonym in Spanish is “*índice de la Bolsa de Nueva York*”); the York system (in English, French, Spanish, Romanian).

The terminologist and the issue of identity The problem of linguistic policies cannot be addressed without discussing the possibilities of planning with the aspects of “*identity*” in contemporary society, especially in the context of globalization. Identity has profound implications in the dynamics of this direction and is reminiscent of a traditional system of thought that sets out rigorously the conduct towards personal codes of communication. The first of the theoretical objectives of linguistic policies is that language has a pre-established social role, whereby influences - although accepted as *sine die* phenomena - are assimilated with caution as far as helping to develop the means of expression of the system itself. The forms of identity are relatively fixed and limited We talk about an *informational identity* - manifested horizontally - in a European society of science, *but also about an identity that must be studied in the context of alterity, in relation with the identity of others* (social groups, national languages, minority languages, etc.). On the vertical axis there is a third form of identity, canonical in itself, respectively, *the identity of the linguistic matrix* (Romance languages, Germanic languages, etc.). In this context we could address the issue of the special languages from a trichotomic, integrating perspective, using the equation of globalization - language policy and planning - identity. In this trichotomy “language policies” represent the norm, a first degree of abstraction in relation to globalization and identity: these are represented as the features of normalization,

management and planning on the systemic and macro-systemic level, which enable the differentiation of some relations: freedom-constraint in the language, innovation-tradition, individual-social, particular-general, creation-representation. It is a first degree of abstraction in interpreting nomenclatures in (and through) the linguistic act.

Terminology and “luxury” loanwords. One of the principles underpinning EU legislation is that of the diversity of cultures, and, implicitly, the diversity of languages. Opening towards other cultural spaces, towards avant-garde domains of science, is fundamental, in the vision of the European Union. The respect for linguistic diversity has been stipulated in article 22 of the Charter of Fundamental Rights of the European Union, adopted in 2000, and EU membership means the affiliation of every country to these linguistic policies. This principle, properly understood by language communities, can only be beneficial. However the right to freedom of expression acquires a subjective perception (restricted by the totalitarian regimes in south-eastern Europe, for example), being claimed abusively both as an individual phenomenon and a group tendency. As an individual phenomenon, the abuse of loan terms is the subjective reflex of the individual to build its own identity, by reporting it to the extending multilingual and multicultural opportunities. Linguistic behaviour is affected by the individual’s own superficiality, but also by the tag-patterns, false in themselves, offered by the media. The unjustified invasion of foreign terms is an attitude issue, which could be eradicated through the development of multilingual and communicational abilities of the individual. This should be one of the fundamental applicative objectives of language policies. There is a disagreement between the attitude towards a certain code (and to the degrading of different types of discourse) and the concerns to promote linguistic diversity, generated by the European Union - implicitly, by every national language. This is a paradox of the beginning of the third millennium, the mitigation of which is related to early and closely supervised education of interpersonal communication - under current multilingualism. This type of imminent education of linguistic policies is achievable first through discipline, and in the institutional frameworks of secondary and university education, as well as in the superior frameworks of innovation and research of linguistic and terminological organizations (national and international), of specialized journals, professional organizations, etc. At the group level there is a tendency for certain “self-considered” elite professional communities to rebuild their identity according to the vector of “linguistic fashion” (President of the Francophone Press Union, UPP). There are units that we call borrowings for prestige (“luxury borrowings”, in the conception of Sextil Pușcariu), used for concepts that have terminological coverage in national languages. In the field of fashion: fashion / Rom. syn. “modă”; make-up / syn. “farduri”; trendy/ Rom. syn. “modern, în pas cu tendințele modei” (‘modern, in tune with trends of fashion’). In arts: band/ Rom. syn. “formație” ‘formation’; performace/ Rom. syn. “spectacol” ‘show’. The only reason to use these doublets is intellectual conformism. The problem raised by the insertion of borrowings for prestige in terminology it is not the exceeding of the Graeco-Latin / Romance language matrix but the abuse of functionality.

There are terms without any historical justification or innovation in the field of professional languages and even less, at the level of the common language, showing a pansocial tendency.

Here intervenes the fundamental role of linguistic policy and planning that the information explosion of the twentieth century gradually transforms into an independent subject. As the expansion of scientific knowledge is increasing and its pace is accelerating, specific needs in the field of terminology are becoming more and more stringent. Herve Bourges called it “the dictatorship of actuality” at the event "Roumanie et Francophonie”. Etats generaux”), reporting it to multicultural contexts that it constantly enters into a relationship with. Many neonyms used only in certain areas illustrate the phenomenon of transfer of terms from the scientific terminology to the common language, which postulates a more careful management and monitoring on behalf of the linguist and the lexicologist.

The theoretical objectives of language policies in such situations should include: description of criteria and possible options in terms of selection, but especially in determinologisation and their entering into common language, developing a deliberate intervention plan on an idiom. From among the applied objectives, the priority should be the highlighting of tendencies / ways to maintain the unity of the matrix of a language; standardization - as an explicit mechanism of language policies and planning, through specialized state institutions, through research activities conducted in the frame of national/international organisations of linguistics or terminology; management of ways of enriching a language, through adaptation to the sociolinguistic context; conceptual-expressive and communicative analysis of professional language in the socio-cultural context. In order to be functional, this latter objective concerns exactly the delimitation of the fields of application of the linguistic and cognitive patterns; solving problems arisen by the transdisciplinary character of certain areas. We consider, however, that both theoretical objectives and applicative ones will not become operational as long as, language policy and planning “will not develop as a uniform subject of study as the multidisciplinary field of human activity. This discipline / and its related activities will have, especially in the context of globalization - the role to norm, to qualify and describe an unexplored phenomenon of human civilization - starting from the foundations of its identity and its respect in every aspect. This, all the more so when the European globalisation policy encourages diversity at the sociocultural and linguistic level.

Author's Note: The paper “The impact of linguistic policies upon terminology/the translator” was presented at the University of Algarve in Faro (Portugal). Because the website where the paper is shown is not indexed, we republished the study in Studia Universitatis Journal, rated by CNCS and indexed in international dababases.

Bibliography

- Bidu / Vrânceanu Angela (coordonator), Ene Claudia; Săvulescu Silvia; Toma, Alice 2002, *Lexic comun/lexic specializat*, Universitatea Bucharest;
- Cabré 2000: M. T. Cabré, *Terminologies et linguistique: la théorie des portes*, *Terminologie nouvelle* – June
- Coșeriu, 1988: Eugeniu Coșeriu, *Limba și știința [1988]*, în Coșeriu, 2009;
- Dpéecker L.2002: „*Linguistique et terminologie: problématique ancienne, approches nouvelles*”, *Bulletin de la société de Linguistique de Paris*, vol. 97, no. 1, Paris: Peeters, p.123-152;
- Gallais-Hamonno, Janine 1982: *Langage, langue et discours économiques*, Centre d'Analyse syntaxique, Université de Metz;
- <http://ebooks.unibuc.ro/filologie/vranceanu/part347bibl.htm>
- Kocourek, R.1982. *La langue française de la technique et de la science*. Wiesbaden : Oscar Brandstetter Verlag GMBH & Co. KG;
- Marcus Solomon1970: *Poetica matematică*, Bucharest, Editura Academiei;
- Nida, Eugene A.2004: *Traducerea sensurilor*, introductory study, interview, translation and notes by Rodica Dimitriu, Iași, Institutul European;
- Nistor M. 2000: *Terminologie lingvistică*, Bucharest, Editura Univers;
- Rădulescu-Vintilă, Ioana: *Limba română din perspectiva integrării europene*, article read using the on-line library of the University of Bucharest;
- Saussure Ferdinand de (1916) publié par Charles Bailly et Albert Séchehaye 1995 : *Cours de linguistique générale*, Paris. Edition Payot, Grande Bibliothèque Payot ;