The "analogue rule" a useful terminological tool in interlingual transfer of knowledge

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1 «Transfer» of the basic data concerning a new concept from the source language (SL) to the target language (TL)

A new concept (= a *new knowledge unit*) in the SL means: *new objects* being covered, *new combination* of characteristics, *new definition,* and *new designation* **X** (= *name, term* or *symbol*), the latter formed by the *SL namer* (through the *SL convention*).
Within the *TL namer's mind*, *characteristics* and *concept* have interlingual character and need not be transferred from SL to TL; *definition* is transferable as describing the *new concept* through known *concepts* and *designations* both in SL and TL, while a new designation **Y** – equivalent to **X** – has to be formed in TL (through the *TL convention*).
Therefore, the passage of a new *concept*, as a new *unit of knowledge*, from SL to TL for further communication, is done through a *noetic translingual interface,* which is effected within the *target language namer's* mind.

2 Main term-formation mechanisms for concept naming based on the English language (according to ISO)

Three general term-formation mechanisms (ISO, 2000), which apply in English and may also apply in other languages are: **2.1 *creating new forms*** *(through processes such as derivation*, *compounding,* and *abbreviation),* **2.2 *using existing forms*** *(through processes such as terminologization, semantic transfer,* and *transdisciplinary borrowing)*, and **2.3 *translingual borrowing***.

3 Main term-formation mechanisms for naming new concepts in Greek (either as a SL or as a TL)

The following mechanisms which apply in Greek fall properly within the three main ISO mechanisms.
a. *Creation of a **neologism** by creating a **new Greek word** which has never been used till now in the Greek language (by employing processes and techniques such as **derivation**, **composition**, **parasynthesis**, **blending*** et al. (*ISO case **2.1**).*
b. *Formation of a polylectic (multi-word) complex term by using **known Greek terms** in a syntactical interrelation which mirrors the verbal description of the definition. Shortening processes can also be used, such as **initialism formation** and **acronym formation***. (*ISO case **2.1**).*
c. ***Transfer*** of a *– monolectic or polylectic –* term *from the **general language** (terminologization) or from **another subject field*** (*transdisciplinary borrowing*)*, i.e. use of a common term, or a term from another subject field, as **designation** of the new concept of the subject field under consideration.(ISO case **2.2**).*
d. ***Translingual borrowing*** *of a term from another language, that is **transcription** of this term into the Greek alphabet **with or without adaptation** of the term to the conjugational system of Greek. (ISO case **2.3**).*
e. *Application of the "**synecdochical extension**", i.e. the use – by logical extension – for a concept, a qualification proper to another concept which is related to the former, and has basic importance for it. This process does not constitute a separate mechanism, but a horizontal rule applying to all other mechanisms stated above. Although not mentioned by ISO, this mechanism applies in English too.*

4 Formulation of the «analogue rule» of naming

For the (Greek) TL namers the question is: which one of the abovementioned mechanisms should they choose? The figure shows a simple block diagram of naming a ***new concept***; firstly in the *source language* (left side) and then in the *target language* (right side). As shown in this figure, the act of naming a *new concept* in the *target language* does not take into account, as the only ***data***, the ***definition*** of the concept and its ***designation*** (the ***term***) in the *source language*, but it additionally takes into account the ***term-formation mechanism*** in the *source language.*

An immediate question is then asked: To what extent the *target language* namer will follow a route ***analogous*** to that followed by the *source language* namer, i.e. an ***analogous term-formation mechanism*** in the *target language*. For the Greek language as *target language,* the answer is based on more than twenty years' terminological practice and experience in naming, in the framework of cooperative work with terminology bodies such as **MOTO** (Permanent Group for Telecommunication Terminology) and **ELOT/TC48/WG1** (Information Technology Terminology), and has been formulated (Valeontis, 1997) as the «Analogue Rule» of Naming:

> **The "Analogue Rule" of Naming:**
>
> *When forming a term in a language (target language) in order to name a **new concept** that has been **primarily** named in another language (source language), the namer's **first choice** should be to apply a term-formation mechanism **analogous** to the term-formation mechanism used for the source language term.*

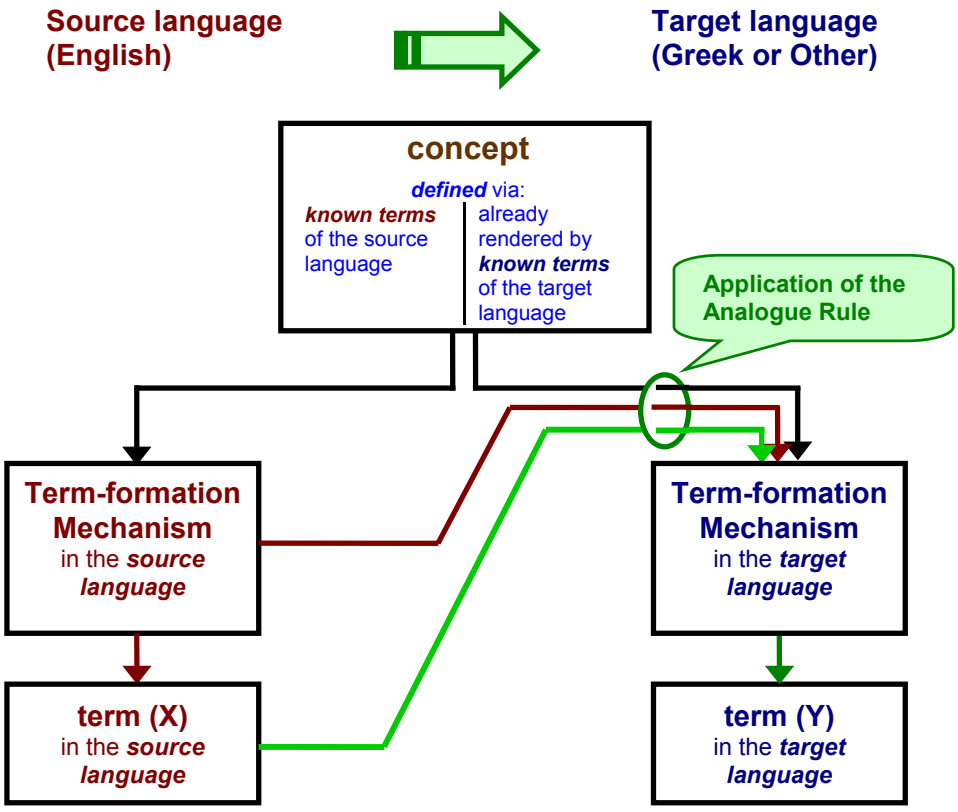


Figure – The application of the «Analogue Rule» for naming a new concept in TL takes also into account, besides the *definition* of the concept and the *term* designating it in *SL*, the relevant *term-formation mechanism*.

The following table 1 gives the correspondence of some **analogous** data examined when applying the Analogue Rule.

Table 1 – Correspondence of term-formation mechanism data examined according to the Analogue Rule

No.	In source language	In target language
1	A *monolectic new form* X has been created **a.** monolectic Simple Term X (**ST**) **b.** monolectic complex term X (**dD** or **Dd**), where **d** is the *determining component* and **D** the *determined component* of the term.	Creation of a *monolectic*[1] term Y (neologism), simple or complex correspondingly, is examined. In case of a complex term the examination focuses on the correspondence of its immediate components (i.e. the ***D****etermined component* of X to the ***D****etermined component* of Y, and the ***d****etermining component* of X to the ***d****etermining component* of Y: $D_X \Leftrightarrow D_Y$ and $d_X \Leftrightarrow d_Y$)
2	A *polylectic new form* X has been created (polylectic complex term).	Creation of a *polylectic* term Y is examined, with immediate components of Y (D_Y, d_Y) corresponding to those of X (D_X, d_X).
3	The term X has been obtained by *conversion.*	Analogous *conversion* to obtain the equivalent term Y is examined.
4	There has been *terminologization* of the general language term X.	Analogous *terminologization* of the equivalent or other proper general language term Y is examined.
5	There has been *transdisciplinary borrowing* of the term X from the subject field SF.	The examination is whether *transdisciplinary borrowing* of the equivalent term Y from the same subject field SF may be adopted.
6	The term X is an *abbreviated form* of the full form x.	Creation of an *abbreviated form* Y of the equivalent full form y is examined.
7	S*ynecdochical extension* has been applied to the term X.	Application of the analogous s*ynecdochical extension* to the equivalent term Y is examined.

5 Application examples of the «analogue rule»

Example 1:

In subject field <Electronics> the **English** term **chip** was formed in the source language as a simple monolectic term, by ***terminologization*** of the common term "chip" which means «a very thin slice of wood, food et al.» to render the concept «*integrated circuit in the form of a rectangular thin flat piece of semiconductor*». In **Greek**, MOTO applied an ***analogous mechanism*** by *terminologization of the common Greek term* ***πλινθίο*** /plinθío/ (= little brick). This rendering made

[1] Rendering a *monolectic* term of the source language by a *monolectic* equivalent term of the target language (hereupon Greek) – regardless of its being a simple or complex term – is particularly important for transferring the future development of the relevant concept system to the target language, since it makes possible further manifold complexing with other components in order to designate newer concepts of the field.

possible to designate ***analogously*** a number of related concepts such as those in table 2.

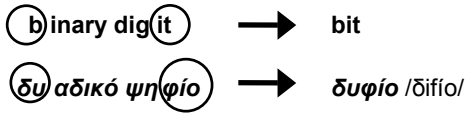
Table 2 – Some English terms containing the component **chip** and the corresponding Greek equivalent terms in accordance with the Analogue Rule

English term		Case in Table 1	Greek term	
chip	ST	4	***πλινθίο*** /plinθío/	ST
chip-carrier	dD	1b	***πλινθιοβάση*** /plinθio-vási/	dD
silicon chip	dD	2	***πλινθίο πυριτίου*** /plinθío piritíu/	Dd
multichip {n.}	dD	1b	***πολυπλινθίο*** /poli-plinθío/	dD
multichip {adj.}	dD	1b	***πολυπλίνθιος*** /poli-plínθios/	dD
multichip module	dD	2	***πολυπλίνθιο δομοστοιχείο*** /poli-plínθio δomostixío/	dD
chip frequency	dD	2	***συχνότητα πλινθίου*** /sixnótita plinθíu/	Dd

Example 2:

In <Information Technology> and <Telecommunications> the English term **bit** was formed in the source language as a new form (a monolectic simple term) by ***abbreviating*** (hereupon ***blending***) the full form **binary digit** without changing the concept designated by the full form: «*a digit of the binary numbering system*»

The two bodies, **MOTO** (Telecommunications) and **ELOT/TC48/WG1** (Information Technology), proposed three candidate equivalent Greek terms for **bit**, which ELETO put to vote among its members. The proposal voted for was ***δυφίο*** /δifío/, which is produced by ***blending*** the equivalent full Greek term ***δυαδικό ψηφίο*** /δiaδikó psifío/ in exactly the same manner as for **bit**:



The adoption of the term ***δυφίο*** has really *disburdened* the Hellenic telecommunication terminology, by allowing a rationalizing revision of some hundreds of Greek complex terms containing the full form ***δυαδικό ψηφίο*** as a rendition of the source language term **bit**. Some of those terms are given in table 3.

Table 3 – Some English terms containing the component **bit** and the corresponding Greek equivalent terms in accordance with the Analogue Rule

English term		Case in Table 1	Greek term	
bit {n.}	ST	6, 1a	***δυφίο*** /δifío/	ST
bit {adj.}	ST	6, 1a	***δυφιακός*** /δifiakós/	ST
bit number	dD	6, 2	***αριθμός δυφίου*** /ariθmós δifíu/	Dd
bit sequence	dD	6, 2	***ακολουθία δυφίων*** /akoluθía δifíon/	Dd
bit error	dD	6, 2	***δυφιακό σφάλμα*** /δifiakó sfálma/	dD
bit error ratio	dD	6, 2	***λόγος δυφιακών σφαλμάτων*** /lógos - δifiakón sfalmáton/	Dd
bit-oriented protocol	dD	6, 2	***δυφιοστρεφές πρωτόκολλο*** /δifiostrefés protókolo/	dD
data bit	dD	6, 2	***δυφίο δεδομένων*** /δifío δeδoménon/	Dd
field extension bit	dD	6, 2	***δυφίο επέκτασης πεδίου*** /δifío - epéktasis pedíu/	Dd
dibit	dD	6, 1b	***διδυφίο, δίδυφο*** /δiδifío, δíδifo/	dD

Example 3:

ELOT (Hellenic Organization for Standardization), for the subject field <Quality>, ***borrowed*** from <Diplomacy> the Greek term ***διαπίστευση*** as the Greek equivalent term for the English **accreditation** to render the concept «*procedure to provide a formal recognition that a certain organization or person is competent to accomplish special tasks*»(see also Table 4)

Table 4 – Rendition of some English terms, from <Quality>, which contain the component **accreditation**

English term		Case in Table 1	Greek term	
accreditation	ST	5	***διαπίστευση*** /δiapístefsi/	ST
laboratory accreditation	dD	5, 2	***διαπίστευση εργαστηρίου*** / δiapístefsi eryastiríu/	Dd
accreditation criteria	dD	5, 2	***κριτήρια διαπίστευσης*** /kritíria δiapístefsis /	Dd
accredited laboratory	dD	5, 2	***διαπιστευμένο εργαστήριο*** /δiapistevméno eryastirio/	dD
accreditation body	dD	5, 2	***οργανισμός διαπίστευσης*** /oryanizmós δiapístefsis /	Dd

Example 4:

The *synecdochical extension* of the use of the English adjective «**digital»** from the concept «*digital signal*» (**=** «*signal*

with discontinuous temporal change in one of its characteristic quantities, which assumes values from a set of discrete values») to a series of related concepts of the same concept system has been adopted (by MOTO) and used for the Hellenic Telecommunications Terminology (see also Table 5).

Table 5 – <Telecommunications> From «**digital**» **signal** to a series of other «**digital»** concepts

English term (dD)	Case in Table 1	Greek term (dD)
digital signal	2	***ψηφιακό σήμα*** /psifiakó síma/
digital input (= digital signal input)	2, 7	***ψηφιακή είσοδος*** /psifiakí ísoðos/
digital electronics (= digital signal electronics)	2, 7	***ψηφιακή ηλεκτρονική*** /psifiakí ilektronikí/
digital network (= digital signal network)	2, 7	***ψηφιακό δίκτυο*** /psifiakó ðíktio/
digital connection (= digital network connection)	2, 7	***ψηφιακή σύνδεση*** /psifiakí sínðesi/
digital radio link (= digital signal radio link)	2, 7	***ψηφιακή ραδιοζεύξη*** /psifiakí raðiozéfksi/

6 Conclusions

In transferring knowledge from one language (*SL*) to another (*TL*) transfer of *new concepts* as new *knowledge units* plays a basic role. One of the essential components of this transfer is *naming* the new concepts in *TL*, a function usually performed by *terminology bodies* (special committees or groups) of *TL* (*TL namers*). The «Analogue Rule» is applicable when naming new concepts, which have not been named before in the *TL*. According to this rule, besides the SL *definition* and *designation* of the new concept the *target language namer* is asked to take also into consideration the term-formation mechanism used in SL, and investigate, as first choice, the likelihood of using an *analogous term-formation mechanism* in TL.

The Analogue Rule does not *impose*, but simply *gives priority* to the examination of a term-formation mechanism in TL analogous to that in SL, thereby ensuring:

- *utilization of the work* **which** has been accomplished in the *source language,* where the *new knowledge (new concept*) was created*,* and **which** it is unwise to ignore*;*
- *restriction of arbitrariness* in selecting term-formation mechanisms possibly *irrelevant* to, or *incompatible* with, the term-formation mechanisms for the rest of the concepts of the same concept system, where the concept being named belongs;
- *minimization of the problems* that may arise from future *modifications* or *revisions*, which will reasonably be effected in the SL (given that knowledge from future development of the subject field under consideration will most probably remain *imported knowledge* for the TL).

REFERENCES

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