### Intellectual Rigor and beyond: Inter-disciplinary Communication in a *Glocalized* Context

Ekaterini Nikolarea  $(*)^1$ 

<sup>1</sup> University of the Aegean

### Abstract<sup>2</sup>

This paper will challenge the present concept of "intellectual rigor" in an interdisciplinary communication and discuss how it should be expanded so that, on the one hand, **specialists** that move between at least two different linguistically discourses (i.e. in a glocalized context) can develop: (1) **uncertainty and stress tolerance for unknown scientific terms** when trying to communicate their ideas in a different linguistic scientific environment; and (2) **association skills**, that is, skills in finding equivalences in two different linguistically discourses. On the other hand, **peer reviewers**, especially those who are monolingual (i.e. only English-speaking ones) and do not have any knowledge of OTHER scientific discourse(s) and sociocultural context(s), should develop the necessary skills and understanding of what is entailed in not just an inter-disciplinary communication but rather in an interdisciplinary communication in a glocalized scientific context.

**Keywords:** glocalized context, glocalization, inter-disciplinary communication, untranslatability, linguistic asymmetry, lexemes/polysemes, inter-scientificity, reverse inter-scientificity, lexemes/polysemes

#### **1.** Inter-disciplinary Communication in a *Glocalized*<sup>3</sup> Context

# **1.1. The Inter-disciplinarity of Various Fields: An Inter-disciplinary Challenge**

Geography, Social Anthropology and History, Cultural Technology and Communication, Sociology, Marine Sciences (to name a few) are interdisciplinary fields of study that combine Social and/or Natural Sciences in the study of a broad variety of social and environmental phenomena, such as urban, regional and rural development, tourism development, migration, social exclusion, globalization, geopolitical conflicts, land degradation, desertification in a historical context. Thus, specialists of these fields must be

<sup>&</sup>lt;sup>1</sup> Dr Ekaterini Nikolarea, ESP/EAP teacher, University of the Aegean.

<sup>&</sup>lt;sup>2</sup> The peer editor of this article is Professor George Tsobanoglou in the Department of Sociology at the University of the Aegean, Lesvos, Greece. E-mail addresses: <u>G.Tsobanoglou@soc.aegean.gr</u> or <u>georgetsompan@gmail.com</u>

<sup>&</sup>lt;sup>3</sup> For the notion of *glocal* and *glocalization*, see R. Robertson (1994, 1995, 2004, 2006 and 2013) and Nikolarea (2005, 2019a and b, 2020). Within the present context, *glocalization* is understood as diverse types of interrelationship and interdependency between local and global linguistic and cultural processes, which reveal the impact of the global (English as *lingua franca*) upon the local (e.g. Greek).

equipped with the necessary knowledge, expertise and skills to analyze and recommend feasible and sustainable solutions to contemporary spatial, social, economic and environmental problems (Kneale, 2003).

# **1.2.** The Inter-disciplinarity of Various Fields: An Inter-disciplinary Challenge for Non-English Specialists

It is precisely the inter-disciplinarity of the aforementioned fields that has become a multi-leveled challenge for non-English (e.g. Greek) specialists. And it is a challenge for them, because they usually have to search for and read a substantial number of references written in English (the *global* language) and use the knowledge acquired to the spoken and/or written lo*cal* language, which is the language of instruction (Greek, in our case).

Nevertheless, during this process of moving back and forth between the two different linguistically discourses and *glocal* knowledge-based environments, specialists may face difficulties in understanding specialized texts written in English due to *the polysemy of a variety of terms* and *the lack of bilingual specialized dictionaries*.

Now, considering that most of these specialists are strongly interested in presenting their own research in international conferences and having it published in international journals, whose language of communication is English, then there are two sets of questions that can be raised: (1): *How can non-English specialists move with ease between glocal knowledge-based environments and communicate their research when they face the challenge not only of the lack of bilingual specialized dictionaries but also the polysemy of a variety of inter-disciplinary terms, which - because they draw upon different disciplines - are now being re-contextualized and assuming a totally different meaning in the specific inter-disciplinary field?<sup>4</sup> And if it so, then (2) how can peer reviewers become aware of the aforementioned difficulties that non-English specialists may have encountered, while writing a scientific paper, and what the latter claim may read "unfamiliar" and seem not to conform with the former's perception of "intellectual rigor"?* 

#### 2. Inter-disciplinarity: A *Topos* of "Inter-scientificity", "Reverse interscientificity" and a Challenge for "Intellectual Rigor"

## 2.1. Inter-disciplinarity: A *Topos* of "Inter-scientificity" and/or "Reverse inter-scientificity"

In this section we will try to illustrate through some examples how "interdisciplinarity" of specific disciplines in a *glocalized* environment becomes a *topos* of "inter-scientificity" and/or "reverse inter-scientificity", neologisms,

<sup>&</sup>lt;sup>4</sup> A similar claim is made by an ESP teacher of Marine Studies in Italy; see Reguzzoni 2006: 13-16.

which were coined and introduced by the writer of the present article, first, in Nikolarea, 2004 and then were discussed more thoroughly in Nikolarea 2006, 2019 b, and 2020.

Within the present context, "inter-scientificity" indicates the application of linguistic methods and principles either to overcome problems of "untranslatability" of scientific terms or to solve the problem of linguistic asymmetries between a pair of different linguistically scientific fields - for example, English: Greek, English: Spanish, Arabic: Greek etc. The problems of "untranslatability" or linguistic asymmetries are usually created by the polysemy of scientific discourse in a glocalised context – that is, when the global (English) meets and interacts with the local (e.g. Greek). Here, it should be noted that the issue of "untranslatability" is a common issue in Translation Studies that should be dealt with by translation practitioners (Maginot, 2015), and solution should be found if 'scientific' communication between two different linguistically scientific discourses (thus, 'interscientific') can be achieved. Nevertheless, what is common practice in Translation Studies is almost totally unknown in other scientific fields at English and non-English universities and in peer-reviewing in international journals published in English, due to the fact that scientists and peer *reviewers*<sup>5</sup> are not trained (as translation practitioners are) to recognize these issues.

Therefore, within a non-English academic context and within an international peer-reviewing context, "inter-scientificity" is meant scientists and peer-reviewers' ability to move with ease between at least two linguistically different scientific contexts and comprehend inter-scientific differences not only across disciplines but also across different linguistic systems and cultures, without de-contextualising scientific discourse from its respective linguistic, socio-political and cultural context(s). Thus, "inter-scientificity" can be considered a skill or a competence that *all parties involved* acquire as to how they can distinguish between various readings of a polysemous terminological entity (or *polyseme*) and can use this *polyseme* accurately in at least two linguistically different scientific discourses.

To illustrate what "inter-scientificity" and/or "reverse inter-scientificity" mean in actual use and how complex and challenging are for *all parties involved*, we will offer two examples of "inter-scientificity" in Figures 1-2 and two examples of "reverse inter-scientificity" in Figures 3-4, which we have repeatedly encountered it in our academic environment (i.e. in translating scientific papers into English, editing papers for international publication and in teaching ESP/EAP<sup>6</sup> classes for the last twenty years).

<sup>&</sup>lt;sup>5</sup> Henceforth, they will be referred to as *all parties involved*.

<sup>&</sup>lt;sup>6</sup> ESP: English for Specific Purposes and EAP: English for Academic Purposes.

**2.1.1. One Example of "Inter-scientificity": (a) Affinity**. In our discussions with Social Anthropologists and students of Social Anthropology at the University of the Aegean, when we mention the term **affinity**, people are usually stupefied and cannot understand what we mean. Their responses usually make us realize that we are too presumptuous. We assume that colleagues and students would know the four Greek equivalents of this frequently-used English term, and that they would be able to select the correct equivalent by matching their respective meanings withw the specific context this term occurs.

Thus, our colleagues and students' stupefaction has made us aware that this frequent word in English scientific discourse is polysemic in Greek, as shown in Figure 1.

Affinity: (1) Συμπάθεια, (2) Αγχιστεία, (3) Έλξη, (4) Χημική Συγγένεια

#### Figure 1: Greek Polysemes of Affinity

As we can see, whereas in English <u>one single word</u> or one *lexeme* (i.e. **affinity**) denotes both general and technical meanings, in Greek <u>four different words</u> or four different *lexemes* or *polysemes* are used: (1)  $\Sigma v \mu \pi \dot{\alpha} \theta \varepsilon i \alpha$  or "liking, fondness" for general meaning; (2)  $A \gamma \chi i \sigma \tau \varepsilon i \alpha$  is literally translated as "non-blood relationship" usually by marriage or by ties other than those of blood (it should be distinguished from **consanguinity**) - [a term that is used in <u>Social or Cultural Anthropology</u>]; (3)  $E\lambda\xi\eta$  The third *polyseme* is literally translated as "Attraction" [and it is used in Chemistry]; and (4)  $X\eta\mu\nu\kappa\eta$   $\Sigma v\gamma\gamma\varepsilon\nu\varepsilon\iota\alpha$  is literally translated as "Chemical relationship" [and it is used in Chemistry].

So, Greek scientists and, especially Anthropologists, should: (1) know that, when **affinity** is used in different linguistic environments, it may have four equivalents in Greek [Figure 1, (1), (2), (3), (4)]; and (2) identify which meaning this term acquires in a given scientific environment; that is, if **affinity** is used in its <u>social/cultural anthropological</u> sense [Figure 1, (2)] or in its <u>physical anthropological</u> sense [Figure 1, (4)]. The Greek scientists' ability to identify which meaning **affinity** acquires in a scientific (con)text and transfer it to their language of instruction (i.e. Greek) appropriately is an issue of 'interscientificity'<sup>7</sup>.

A further difficulty is that, whereas in English **affinity** can also be used as an adjective in a specific linguistic and scientific environment, in Greek it cannot.

<sup>&</sup>lt;sup>7</sup> At this point, we should emphasise that English Social/Cultural Anthropologists and Physical Anthropologists may also have the same difficulty as their Greek counterparts with identifying which meaning **affinity** acquires in a given scientific (con)text, thus encountering the same issue of "interscientificity". The difference lies in the fact that English **affinity** is just one term with four different meanings, whereas in Greek there are four different terms for the one English term.

Therefore, the term **affinity** has been proven to be a complex case characterized by multi-leveled interpretations and uses in both languages as well as by grammatical and syntactical asymmetries across languages and scientific discourses.

Furthermore, we have observed that there have been two more issues involved:

- (1) The linguistic context (oral and written) may not necessarily help us understand the meaning of **affinity**.
- (2) Despite the fact a specialist may consult a general bilingual dictionary, s/he may not select the right meaning or *lexeme* either because s/he may not know how to use a bilingual dictionary or because s/he may not be aware of the other *lexemes* (and meanings) of the term.

**2.1.2.** Another Example of "Inter-scientificity": (b) Bed. Another case of "inter-scientificity" that shows its inherent complexity is the polysemous terminological entity bed whose rendering in Greek is ambivalent, when encountered in a variety of highly specialized texts of (inter)related disciplines, such as Physical Geography, Oceanography, Environmental Studies, as shown in Figure 2 below and the analysis that follows.

**Bed:** (1) Πυθμένας. Ο πυθμένας ενός ποταμού ή καναλιού ή της θάλασσας. (ΓΕΩΓΡ, ΓΕΩΔ, ΘΑΛ, ΜΗΧΟΝ, ΠΕΡΙΒ, ΥΔΡΟΛ, ΩΚΕΑΝ). (2) Κοίτη ποταμού. Η επιφάνεια του νερού του ποταμού με το έδαφος. (ΓΕΩΓΡ, ΓΕΩΔ, ΘΑΛ, ΜΗΧΑΝ, ΠΕΡΙΒ, ΥΔΡΟΛ, ΩΚΕΑΝ)

#### Figure 2: Greek Polysemes of Bed

Both in English and in Greek, **bed** can be used in the <u>same</u> scientific environments with the <u>same</u> meaning and nuances; yet, in Greek <u>two different</u> lexical items (*lexemes*) are <u>semantically different</u> in the same sciences, thus being *polysemes*.

More specifically, when **bed** is a technical term, it acquires, at least, two different meanings:

- (1) the bottom of a river or a canal or the sea (or the seabed), in Geography ( $\Gamma E \Omega \Gamma P$ ), Geodesy ( $\Gamma E \Omega \Delta$ ), Marine Sciences ( $\Theta A \Lambda$ ), Engineering (MHXON), Environmental Sciences ( $\Pi E P I B$ ), Hydrology ( $Y \Delta P O \Lambda$ ) and in Oceonagraphy ( $\Omega K E A N$ ): and
- (2) the surface of the river water in the ground (or the riverbed) in Geography ( $\Gamma E \Omega \Gamma P$ ), Geodesy ( $\Gamma E \Omega \Delta$ ), Marine Sciences ( $\Theta A \Lambda$ ), Mechanical Engineering (MHXAN), Environmental Sciences ( $\Pi E P I B$ ), Hydrology ( $Y \Delta P O \Lambda$ ) and in Oceanography ( $\Omega K E A N$ ).

Now, whereas in English <u>one single word</u> or one *lexeme* (i.e. **bed**) denotes both technical meanings, in Greek <u>two different words</u> or two different *lexemes* or *polysemes* are used: (1)  $\Pi \upsilon \theta \mu \acute{\epsilon} \nu \alpha \varsigma$  and (2) Koít  $\pi \sigma \tau \alpha \mu \sigma \acute{\nu}$  for two of its technical meanings (see Figure 2, (1) and (2) respectively).

So, Greek students and specialists in these fields should first know that, when **bed** is used in different linguistic environments, it may have two equivalents in Greek (see Figure 2, (1) and (2)), and, second, identify which meaning this term acquires in a given scientific environment; that is, if **bed** is used as *the bottom of the sea* or *seabed* (Figure 2 (1)) or as *the surface of the river water in the ground* or *riverbed* (Figure 2 (2). Students and specialists' ability to identify which meaning **bed** acquires in a given scientific (con)text and transfer it to their language of instruction (i.e. Greek) appropriately is again an issue of "inter-scientificity".

**2.1.3.** One Example of "Reverse Inter-scientificity": (a)  $\Pi \rho \delta \gamma \rho \alpha \mu \mu \alpha$ . Having discussed about "inter-scientificity", we should mention two examples of "reverse inter-scientificity" or "reverse inter-scientific competence", that is, Greek terms like  $\pi \rho \delta \gamma \rho \alpha \mu \mu \alpha$  and  $\delta \rho \gamma \alpha v \sigma$  whose general sense/use and its English equivalents in a variety of scientific fields confuse Greek students and specialists alike, either when speaking or using them in an essay they write for undergraduate or graduate classes in an English-speaking country, or when presenting their research in an international conference whose working language is English, as we will discuss in the following sub-sections.

**Πρόγραμμα:** (1) Programme (UK) or Program (US), (2) Plan (scheme) or schedule (timetable) [in its general sense]; (3) Program (UK and US), as in a computer program [in Informatics and Computer Science]; (4) Programme (or Program), as in Undergraduate or Postgraduate Studies Programme (or Program) [in Higher Education]; (5) Curriculum, as in a school curriculum or national curriculum [that is usually specified by the Ministry of Education – in Primary and Secondary Education]; (6) Syllabus, as a plan showing what is to be studied in particular course or subject that leads to an exam [in Primary, Secondary and Higher Education]

#### Figure 3: English Polysemes of Πρόγραμμα

We have observed that both Greek students and specialists in various fields have repeatedly been mistaken in transferring the Greek term ' $\pi \rho \delta \gamma \rho \alpha \mu \mu \alpha$ ' into English in speaking or in writing, by using:

(1) 'Programme' or 'program' (Figure 3, 1) *instead of* 'Timetable' (Figure 3, 2), when they want to use the word in its daily routine at the University [in its general sense]; this mistake is usually made by Greek students and specialists alike.

- (2) 'Programme' or 'program' (Figure 3, 1) *instead of* '**Program**' (Figure 3, 3), when they want to use the term for a computer program [in Informatics and/or Computer Science]; this mistake is made primarily by students of the Departments of Geography, Cultural Technology and Communication and Marine Sciences because these Departments have in their Undergraduate and Graduate Studies Program(me)s a variety of courses, such as Informatics, Programming, GIS (: Geographical Information Systems) and Remote Sensing.
- (3) 'Programme' or 'program' (Figure 3, 1) *instead of* '**Curriculum**' (Figure 3, 5), when they refer to school curriculum that is specified by the Greek Ministry of Education [in Education]; this mistake is made primarily by the students of the Departments of Geography, Sociology and Social Anthropology and History, because they take some special courses that will provide them with teaching license or credential and allow them to legally work as a Geography, Sociology and History teachers in the Greek Primary and Secondary Education System.
- (4) 'Programme' or 'program' (Figure 3, 1) *instead of* '**Syllabus**' (Figure 3, 6), when they discuss about what they are going to study for their exams [in Education] this mistake is made by Greek students and specialists alike.

As it becomes conspicuous, this mistaken use leads to a **total breakdown of communication**. Greek students and specialists' difficulty in using the right English *lexeme* or *polyseme* lies in the fact that *either* they translate literally the Greek term  $\pi \rho \delta \gamma \rho \alpha \mu \mu \alpha$  into the English term *programme (and/or program)*, since the latter cognates from the former – and, thus both terms can be considered *faux amis* or *false friends*, as they are called in Translation Studies (Mounin, 1974: 139)<sup>8</sup> - *or* they ignore the linguistic, domain-specific and cultural context of the English term.

The only case where students and specialist do not make a mistake when transferring the Greek term ' $\pi\rho\delta\gamma\rho\alpha\mu\mu\alpha$ ' into **Programme** (or **Program**) in speaking or in writing is when they use it as in Figure 3, 4, where *the use in both languages is identical*.

**2.1.4.** Another Example of "Reverse Inter-scientificity": (b)  $O\rho\gamma\alpha\nu\sigma$ . Another case of a Greek term whose English equivalent puzzle and confuse Greek students and specialists alike is the term  $\delta\rho\gamma\alpha\nu\sigma$ , when using it in a research they want to present in an international conference or to have it published.

<sup>&</sup>lt;sup>8</sup> *Faux amis* or *false friends* are considered to be a word or expression in one language that, because it resembles one in another language, is often wrongly taken to have the same meaning.

**Όργανο:** (1) Organ (a) an organ of a human body (general meaning and a medical term); (b) 'a means of enforcement' in the sentence "the police force is an organ of the government; and (c) a big church musical instrument. (2) *Instrument*: an apparatus, an appliance (general meaning and a scientific term).

### **Figure 4:** English Polysemes of Όργανο

We see that Figure 4 presents <u>one</u> single Greek word or lexeme ' $\delta \rho \gamma \alpha v \sigma'$  which can be rendered in, at least, <u>two</u> different English *lexemes* or *polysemes*, depending on the linguistic, scientific and cultural context. When writing research papers in English, Greek specialists and students usually use the *lexeme* 'organ' instead of 'instrument'; that is, they write 'measurement organs' [sic] instead of 'measurement instruments', with the consequence of a **total breakdown of communication**.

Greek specialists and students' difficulty in using the right English *lexeme* or *polyseme* lies in the fact that the Greek term  $\delta\rho\gamma\alpha\nu\sigma$  is considered a *faux ami* or a *false friend*, as we have discussed in 2.1.3, with the English *lexeme/polyseme organ*, which cognates from the Greek word/term  $\delta\rho\gamma\alpha\nu\sigma$ . Thus, Greek specialists and students, instead of using the correct English equivalent *instrument* (Figure 5, 2), they are usually mislead and use what seems similar to it (a *faux ami* or a *false friend*), that is, *organ*.

**2.1.5.** A French: English Example of "Reverse Inter-scientificity": (c) Demander: Demand. Nevertheless, the issue of "reverse inter-scientificity" and the conept of *faux amis* or *false friends* are not to be encountered <u>only</u> in the Greek: English pair of languages. It can be encountered in <u>any</u> pair of languages.

In the paragraphs below we will provide an example of "reverse interscientificity" and *faux amis* or *false friends* from French: English pair of languages just to show how vexing and confusing for international communication are these two concepts are. Suffice to mention an anecdote from the meeting of the US President George Bush Senior and the French President François Mitterand on the French Caribbean island of Martinique on 14 March 1991, which is very well-known pitfall and an example to be avoided in Interpreting and Translation Studies.

During their informal talks those two political leaders used interpreters. At a moment, the French President François Mitterand said to the US President George Bush: "Je vous demande …" and the interpreter rendered it as: "I demand you …". When the US President George Bush heard that sentence in English stayed still and lost his smile. It took a while to understand that there was something wrong with the interpretation of François Mitterand's statement.

What was wrong? When the French President François Mitterand said to the US President George Bush: "Je vous **demande** ...," this statement should have been interpreted as: "I would ask you" (*vous* is plural of politeness in French) and <u>not</u> "I demand you". Obviously, the French President François Mitterand did not want to demand the US President George Bush! He simply wanted to ask him about something.

Unfortunately, the interpreter interpreted **demande** as "demand", which carries more force with it and was perceived as "offensive" within that particular context. This happened because the French verb / term **demander** (in infinitive form in French) is a *faux ami* or *false friend* with the English verb "demand". Despite the fact that **demander** and "demand" cognate from the same root – that is the Latin verb **demandare**<sup>9</sup> - are asymmetrical, since **demander** can be rendered into "to ask" in English, whereas when the English verb **demand** is used, then it should be translated into "exiger" in French.

## 2.2. Inter-scientificity and Reverse Inter-scientificity: A Challenge for "Intellectual Rigor"

**2.2.1.** Non-English Scientists vis-à-vis "inter-scientificity"/"reverse interscientificity" and "intellectual rigor". As we have discussed above, non-English (and sometimes English) specialists in inter-disciplinary fields encounter the issue of "inter-scientificity" and "reverse inter-scientificity", despite the fact that sometimes *they may not be fully aware of it*. It is also evident that specialists in interdisciplinary fields at non-English Universities face challenges that derive primarily from new academic requirements and market demands that force non-English scientists to communicate their own research that is done in and for a local community and is written in a local language (e.g. Greek, Spanish, Arabic) to a *global* scientific community in the global language (i.e. English). Thus, they should move in a *glocal* academic environment.

Now, if "intellectual rigor is a process of thought which is consistent, does not contain self-contradiction, and takes into account the entire scope of available knowledge on the topic, leaving no room for inconsistencies," ("Rigour" https://en.wikipedia.org/wiki/Rigour), then how can an non-English scientist who is <u>not aware of</u> "inter-scientificity" and the multi-levelled linguistic asymmetries it generates take into account all the available knowledge and leave no room for inconsistencies?

If a specialist is not aware of the issue of "inter-scientificity", then, by definition, s/he cannot recognize from a cognitive point of view (Nikolarea,

<sup>&</sup>lt;sup>9</sup> **Demandare** (a Latin verb: "to order")  $\rightarrow$  Old French: **demander**  $\rightarrow$  Middle English: **demand**. As it can be seen, the English verb **demand** has preserved the initial meaning of the Latin verb **demandare**, whereas the French verb **demander** has two different renderings into (or *lexemes* in) English: (1) "to ask"; and (2) "to demand".

2019) if or when there are any inconsistencies derived from linguistic asymmetries in his/her own effort to communicate his/her **local** interdisciplinary research to a **global** inter-disciplinary community in English, the **global** language. If it so, then the non-English specialist runs into the risk to be misunderstood, his/her own research may be rejected on the premises of logical fallacy and, thus, **no inter-disciplinary communication is achieved**.

Therefore, one of the pressures that *glocalisation* puts on non-English specialists is the demand for "inter-scientificity", a competence which can only be acquired through awareness and training. Therefore, we propose that non-English specialists, while they are undergraduate and/or graduate students, should be trained in how to carry out research into:

- (1) authentic materials written in English so to develop very advanced analytical and combinatory skills;
- (2) scientific bilingual terminology (Burdon 1988; Sager 1990), which demands:
  - a. very advanced analytical skills; and
  - b. very advanced synthetic skills;
- (3) machine translation (Nagao 1989), which demands both very advanced analytical skills, comparative and contrastive skills, if the specialist is to assess and correct the machine-translated text and use it in his/her paper.

Therefore, it becomes conspicuous that non-English specialists should be trained in "inter-scientificity" by translation and terminology scholars (Baker 1997; Burdon 1988; Sager 1990) and lexicographers, because only in this way they will be equipped with the necessary skills and understanding to develop:

- uncertainty and stress tolerance for unknown scientific terms; and
- **association skills**, that is, skills in finding equivalences in two different linguistically discourses.

**2.2.2. English and non-English Peer-reviewers vis-à-vis "intellectual rigor" of a paper and inter-disciplinary communication in a** *glocalized* **context.** But if "inter-scientificity" with its the multi-levelled linguistic asymmetries challenges the exercise of 'intellectual rigor' in a non-English specialist's writing, this concept also challenges the exercise of 'intellectual rigor' in <u>peer-reviewing</u> papers that are written by non-English (international) scientists but from a different point of view.

"Inter-scientificity" challenges "intellectual rigor" in a **peer-review** as to how far a peer reviewer can go beyond certain "scientific conformities and conventions" and explore the "unchartered waters" of an innovative paper that is sometimes and somehow presented in an "*unfamiliar*" (*un+family*;

*umheimlich* – *anoikeio*  $[an+oikos])^{10}$  or a "*strange*" way; a scientific discourse that may incorporate "invisible" linguistic and cultural issues.

An English (especially a monolingual) peer reviewer is usually unaware of the issue of "inter-scientificity" and the multi-levelled linguistic asymmetries it generates, which – in their turn – can also become carriers of cultural asymmetries. If it is so, then, when a peer reviewer tries to be as intellectually rigorous as s/he can, s/he can *fall into not just an intellectual fallacy but rather into a cultural fallacy*, because s/he is not able to detect or recognize incorporated "invisible" linguistic and cultural issues and, thus, s/he may reject *prima facie* (i.e. from the outset) a scientific paper or research that can be innovative and worth being published.

What we then can claim is that, a peer reviewer should: (1) become aware of the issue of "inter-scientificity" and the multi-levelled linguistic and cultural asymmetries it carries; (2) be open to and flexible with a scientific discourse expressed in an "*unfamiliar*" or "*strange*" way; and (3) make constructive suggestions to the non-English writer as to how s/he can improve and make more communicable his/her own paper. Thus, the peer reviewer can help the non-English specialist achieve a global inter-disciplinary communication s/he strives for.

### 3. Conclusions

Considering the complexity of 'inter-scientificity' and 'reverse interscientificity'and the multi-levelled linguistic and cultural asymmetries they may generate, we should claim that the concept of 'intellectual rigor' should be expanded so that, on the one hand, *specialists* that move between at least two different linguistically discourses (i.e. in a *glocalized* context) can develop: (1) uncertainty and stress tolerance for unknown scientific terms, when trying to communicate their ideas in a different linguistically scientific environment; and (2) association skills, that is, skills in finding equivalences in two different linguistically discourses. On the other hand, peer reviewers, especially those who are monolingual and do not have any knowledge of OTHER scientific discourse(s) and socio-cultural context(s), should develop the necessary skills and understanding of what is entailed in not just an interdicsciplinary communication rather inter-dicsciplinary but in an communication in a glocalized scientific context. Should the concept of 'intellectual rigor' be expanded in this way, it will help, on the one hand, non-English specialists communicate better their ideas in a glocalized environment, and, on the other hand, *peer reviewers* understand better what is communicated to them in articles written in English by international scholars whose mother tongue is not English.

<sup>&</sup>lt;sup>10</sup> It is worth noting that the English "unfamiliar", the German "umheimlich" and the (ancient) Greek anoikeio [an+*oikos*] cognate from "family" and/or "home" [*oikos*].

Finally, we are convinced that a 'safety pin' in the process of peer review is the introduction of: (a) **non-blind review**– as done recently in the 13<sup>th</sup> *International Multi-Conference on Society, Cybernetics and Informatics* (*IMSCI'19*) which was organized by the International Institute of Informatics and Systematics; and (b) **peer editing**, as it is being done in the present publication. Coming from the same linguistically and culturally scientific context, both **non-blind reviewers** and **peer editors** can help, even enlighten, the assessment of a paper written by a non-English specialist in English.

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