

Research and Discussion Note

# Peer review process in medical research publications: Language and content comments

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## Abstract

Every article sent by an author to a reputed scientific journal undergoes a rigorous editorial evaluation. The editor has the final responsibility of accepting or rejecting manuscripts and thus can confer authority and validity on the author's research and help to disseminate new knowledge. In this task, editors make use of a panel of expert peer reviewers in the field who examine the manuscript and make recommendations. Some aspects of the peer review process have been investigated by medical scientists and by linguists but to the best of our knowledge, there have been no studies conducted on peer reviewer comments of medical articles written in English by Italian researchers.

The present study aimed to establish the most frequent types of comments made by peer reviewers to identify the most frequent linguistic problems that Italian researchers encounter in this process. A collection of clinical research manuscripts submitted by Italian medical researchers to reputable English language journals were analysed together with the comments by editors and reviewers.

The most frequent comments and criticisms were mainly in the area of scientific and methodological content, followed by lexical and grammatical errors, clarity and verbosity or repetition. An awareness of the features which might affect the acceptance or rejection of manuscripts may help novice writers and furnish training materials to aid researchers in writing publications in English.

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## 1. Introduction

There are roughly 1 million new scientific publications each year, according to the numbers of abstracts published in the scientific abstracting database of the US National Library of Medicine in Bethesda, but because many manuscripts are rejected, editors of scientific journals play a significant role as gatekeepers in the publication quality and trends in scientific research. The editor has the final responsibility of accepting or rejecting manuscripts and can confer authority and validity on the author's research and help to disseminate new knowledge. In this task, editors make use of a panel of expert reviewers in the field called peer reviewers, who examine the manuscript and can recommend rejection, acceptance of the article in the version

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submitted or can send it back to the author enclosing their comments/criticisms, often recommending changes to be made in the text. Each manuscript is usually reviewed by two or three reviewers, who may at times express conflicting opinions. Authors often accept the reviewers' suggestions which may be useful in improving the text.

In the highly competitive arena of academic publications, authors are particularly concerned about the international prestige of the journals in which they publish, in order to ensure high visibility and reader audience. The visibility of scientific journals is given by an index called the Impact Factor (IF), calculated using reader access as well as citation frequencies. It is well known that the prestige journals in medicine are published in English and therefore, it is logical that researchers who are non-native speakers of English (NNSE) might feel disadvantaged and marginalized in such competition because they are often unaware of the linguistic conventions and strategies commonly used in English language journals (Belcher, 2007; Canagarajah, 1996; Gupta, Kaur, Sharma, Shah, & Choudhury, 2006; Loonen, Hage, & Kon, 2005; Myers, 1990; Swales, 1990, 1996 and more recently Giannone, 2008).

The fairness of the review process in science manuscripts has been addressed by Berkenkotter and Huckin (1999, p. 62) and they suggest that "although peer review is not infallible, it remains the primary means through which authority and authenticity are conferred upon scientific and scholarly papers by journal editors and the expert judges whom they have consulted". They describe peer review comments in terms of speech act theory as an argumentative discussion of author and reviewer. Bias by peer reviewers may be introduced by way of a negative authorial voice, that is, opinion constructed by the reviewer about the author (Matsuda & Tardy, 2007), but though asymmetric in discourse terms, peer review does offer guarantees of fairness like blinding, such that the reviewer does not know the name or status of the author and can thus objectively judge the quality of the publication, authorship and conflict of interest (Callaham, 2002). Beyer, Chanove, and Fox (1995) studied peer review comments of Management manuscripts and advocated a coaching style of reviewer comments to improve publication outcomes.

Peer review reports have long been considered an occluded genre (Gosden, 2001; Swales, 1996) and this has made it difficult to study their effect on publication outcomes. In order to improve publication rates, medical editors have published a content-based checklist of study design items under the name of the CONSORT<sup>1</sup> Statement, (Begg et al., 1996). In a conference dedicated to *Medical Journals Editing* (2002) and reported in a special issue of the *Journal of the American Medical Association (JAMA)*, particular attention was paid to creating checklists concerning the soundness of the scientific methodology of research manuscripts (Day, Schriger, Todd, & Wears, 2002; Schriger, Cooper, Wears, & Waeckerle, 2002) but these checklists were not data-driven or pertinent to any pool of manuscripts but rather derived from a generalized reviewer opinion (Schriger et al., 2002) or from a meta-analytic overview (Jefferson, Alderson, Wager, & Davidoff, 2002) and none of the checklists was concerned with the special linguistic problems NNS scientists faced.

In the area of Applied Linguistics for EAP (English for Academic Purposes), Gosden (1995) proposed a social-constructionist interpretation of reviewer comments in order to identify communicative strategies such as improvements in moves or "rhetorical machining" and suggested wider use of context frames such as connectors by non-native speakers of English (NNSE) who had unsuccessfully submitted research articles to international journals. He stressed the need for "cultural awareness" (p. 4) on the part of young research authors in handling the social interaction of scientific research communication. Similarly, Kourilová (1996) analysed a corpus of peer review reports on rejected medical manuscripts of Slovak scientists to identify the pragmatic communicative functions of reviewer comments. She suggested that Slovak writers of English scientific discourse need to master pragmatic skills and socio-cultural strategies. The importance of authors being able to recognize the difference between social interactional (or interpersonal) as opposed to technical comments by peer reviewers was also noted by Gosden (2001). Gosden (2003) also examined a corpus of 40 manuscript submissions with some of their reviewer comments to identify the frequencies of comment types and the motivations behind reviews in order to help novice scientists in revising their manuscripts. In this study, Gosden noted that about two-thirds of all peer comments were interactional in nature and identified the sections of

<sup>1</sup> CONSORT is the acronym for "Consolidated Standards for Reporting Trials", a 22-item methodology checklist for improving the quality of reporting publications of clinical trials in the bio-medical sciences.

research articles (RAs) requiring changes as mainly in the discussion, technical details, author claims and reference to others' work, and a category called 'format comments'. The presence of 'language-use comments' was identified but not classified.

Recently, [Belcher \(2007\)](#) studied comments in a corpus of 29 linguistics research papers comparing network and off-network (periphery, EL, EIL or NNSE) scholars. She identified reviewer comments pertaining to different sections of RAs such as the methods or discussion section, but did not investigate frequencies of commentary types. She observed that the provenance of the author was not as important as author willingness to revise-and-resubmit a manuscript and noted that both networked and off-network authors shared the "same types of content and expression problems" ([Belcher, 2007, p. 18](#)). Like [Gosden](#), [Belcher](#) described the category of comments on "language use" as frequent, and confirmed that although this category received much attention, the composition of this category of language use and style was "amorphous" and remarked that "it is easy to see why some authors might feel that language stands in the way of publication" although she notes that no paper had been rejected for linguistic reasons ([Belcher, 2007, p. 7](#)). [Belcher](#) observed that authors need to recognize that requests for change may be negotiable, echoing the observations of [Gosden \(2003\)](#) and [Kourilová \(1996\)](#).

To the best of our knowledge, no study has been carried out on reviewer comments about medical manuscripts prepared by medical scientists in Italy, who might be considered off-network and NNSE researchers. This paper aims to extend the work of the scholars mentioned in the previous paragraphs, but it also incorporates categories proposed by medical journal publications on peer review. We attempted to identify the most frequent comments and classify them. We therefore collected a corpus of reviewer comments on manuscripts submitted by Italian scientists to international journals and used the categories of [Gosden \(2003\)](#) as a base to classify our corpus of reviewer comments on Italian medical manuscripts in an attempt to find answers to the following queries:

- What kinds of comments are made?
- Which comments were more common – linguistic or scientific-methodological criticisms?

## 2. Methods

### 2.1. Selection, processing and data-handling of the corpus

We solicited reviewer comments together with manuscripts in various stages of review from colleagues, who were carrying out research in our medical school. We collected reviewers' comments from 17 manuscripts submitted to English language medico-scientific journals by NNSE researchers working in Italy. I was unknown if the reviewers were central or periphery scientists.

All the publications selected were research articles (RAs). Other publication types such as reviews or letters to the editor were excluded. We included a research article which was accepted immediately without comment in a reputed journal. All the manuscripts were submitted to journals having an Impact Factor of between 1.3 and 7.5. Acceptance rates of manuscripts were computed and the comments were analysed independently by both researchers for inter-rater agreement.

Upon an initial reading, both researchers agreed that the comments fell into two broad categories which we called content comments and language-use comments. These are labelled with Roman numerals in [Table 1](#). A second reading revealed that both categories of comments varied significantly and, as a consequence, we decided to use the categories of comments following [Gosden \(2003\)](#) as a base, but amplifying them by data-driven terms. These terms came from a 99-item checklist of scientific methodology comments for the peer review conference published by [Day et al. \(2002\)](#) in the medical journal, *JAMA*. [Table 1](#) also shows the correspondences between [Gosden's](#) categories and our categories.

Both researchers read and scored the comments and data were compared for inter-rater agreement. Divergent opinions as to the categorization of reviewer comments were resolved by discussion between the two researchers regarding the point raised by the reviewer and the purpose of the comment in evoking alteration of the text. These two elements guided our identification of the comment and we regarded this as our working

Table 1  
Preliminary checklist of comment categories.

	Correspondence to Gosden's category
I. Content comments, dealing with scientific data	
1. Sampling errors	Technical details
2. Scientific reasoning errors of own data	Technical details
3. Incorrect scientific interpretation of other authors	References
4. Procedural infelicities and lack of rigor	Technical details
5. Statistical irregularities	Technical details
6. Lack of association between claim and prior research	Claims
7. Lack of association between claim and data	Claims
8. Explain why data are unusual	Technical details
9. Incomplete literature	References
10. Terminology or definitions	
II. Language-use comments	
1. Incoherent or lack of clarity	Discussion
2. Not well written/use of English	
3. Verbosity	
4. Repetitions	
5. Typos, improper citation or suggestions for text editor	
6. Wrong section (e.g. move to discussion)	
7. Improve information flow	
8. Up-tone or give more salience to novelty feature	
9. Down tone or hedge	

definition of the comment, namely, the point raised by the reviewer and the purpose of comment to evoke a text alteration. We also found that reviewers frequently numbered the comments in a list. The working definition of a comment perhaps is best illustrated by:

**Example 1:** *excellent – have a colleague edit the syntax and grammar, though...*

We considered this to contain 2 comments: first a positive comment of praise or positive appreciation (*excellent*), followed by a second comment of poor language use (category II.1) containing the expression ‘*edit syntax and grammar,*’ and the connector of contrast ‘*though*’.

### 3. Results

#### 3.1. Publication outcomes of the manuscripts presented

All 17 manuscripts submitted were research articles as defined by Swales (1990). The medical fields comprised neurology, dermatology, internal medicine and surgery.

On the first round of revision, 15 of the 17 manuscripts (88%) were returned for revision and resubmission, but one article (6%) was accepted immediately, with no requests for linguistic revision and only minimal modifications of the report on technical aspects of the study and another manuscript was rejected because of unsuitability for publication in that particular journal. This publication was reviewed. Two of the 15 manuscripts returned after the first round were eventually published in journals with a lower impact factor than that chosen originally by the authors. Three manuscripts were rejected on the second round, but two of these were published eventually in other journals. There was a total of 33 reviewers for 17 manuscripts. We identified a total of 366 comments altogether which constituted our corpus of comments. These data are shown in Table 2.

#### 3.2. Overview of reviewer comment

All 33 reviewers (100%) started their comments with a summary of the topic and 12 reviewers (36%) identified the main claim of the author in a brief description of the main result or results. This summary delineated

Table 2  
Corpus showing medical disciplines, publication outcomes and number of reviewers.

Corpus #	Field	Outcome round 1	Final outcome	Number of reviewers
C1	Surgical angiology	Resubmit	Published-same journal	2
C2	Brain research	Resubmit	Published-same journal	2
C3	Clinical chemistry	Resubmit	P elsewhere	2
C4	Neonatology	Returned	Published-same journal	2
C5	Clinical neurology	Resubmit	Published-same journal	2
C6	Biochemical infection	Resubmit 2×	Published-same journal	4
C7	Clinical virology	Resubmit	Published-same journal	2
C8	Neurophysiology	Resubmit 2×	Published-same journal	1
C9	Virology	Resubmit	Published-same journal	1
C10	Pediatrics	Resubmit	Published-same journal	2
C11	Cerebellum	Resubmit 2×	Published elsewhere	3 From Journal 1 2 From Journal 2
C12	Dermatology	Published as is	Published-same journal	No review comments
C13	Endocrinology	Resubmit		1
C14	Internal medicine	Resubmit	Published-same journal	3
C15	Clinical chemistry	Rejected but reviewed	Rejected, wrong journal	2
C15	Dermatology	Resubmit	Published, same journal	3
C16	Clinical neurology	Resubmit	Published same journal	2
C17	Cognitive neuroscience	Resubmit	Published, same journal	2
Totals				33 Reviewers

the topic as a kind of comprehension check for both reviewer and author. This was followed firstly, by a global opinion of the reviewer and secondly, by numbered detailed comments, in a top-down critique of the manuscript.

We identified a total of 366 comments (inter-rater reliability of 90%) in the 33 reviews of the 17 manuscripts. Most of the comments were negative ones, but a substantial portion (5% of all the comments) expressed praise of the manuscripts. These seem to be revealing of what editors are looking for. Some expressions of positive appreciation (Martin & White, 2007) we found were “highly interesting”, or, “this study will extend our current understanding of the mechanisms. . .”, Positive appreciation was often mitigated by a criticism of language as in Example 1:

**Example 1:** *excellent – have a colleague edit the syntax and grammar, though. . .*

Content comments and methodological criticism accounted for roughly 56% of the corpus of comments while reviewer comments about language-use in our corpus of 366 comments accounted for 44%. The corpus of language-use comments fell into two distinct groups: the first, Lexis/Syntax comments consisted of 33.1% of the corpus, and dealt with changes in sentence form: lexis, grammar and syntax as in Example 2:

**Example 2:** *. . .and the abstract too would benefit from some grammatical restructuring. . .*

The second group, Discourse & Rhetorical Comments (10.7%), dealt mainly with comments pertinent to text structure and expressions of author evaluation. This separation is shown in Table 3, in which lexical and grammatical comments are labelled A while discourse and features of evaluation and rhetoric are, labelled B. Table 3 also shows the distribution of frequencies of the main categories of comments we defined. A breakdown of the categories is shown graphically in Fig. 1.

In the following section, we will describe specific examples of each category of comments. In all cases, we will avoid indicating area of research in medicine using the abbreviation [MedField], and square brackets, following the pattern used by Gosden (1995). We will use the expression Technical Detail as [td] and subsets of these as [td<sub>1</sub>] and [td<sub>2</sub>] for all scientific reference in the examples themselves. Similarly, citations are referred to in square brackets as [citations] and quotations from the text of the manuscripts are given as [text]. The reason for this is to conserve anonymity for the authors of the manuscript, referred to as [A].

Table 3  
Distribution of comment categories as %.

	As % of N = 366
<b>I. Content comments (56.28%)</b>	
1. Incomplete literature	9.84%
2. Lack of association between claim and data	9.29%
3. Procedural infelicities and lack of rigor	9.02%
4. Explain why data are unusual	8.47%
5. Scientific reasoning errors of own data	5.46%
6. Terminology or definitions	4.92%
7. Statistical irregularities	3.83%
8. Incorrect scientific interpretation of other authors	3.55%
9. Lack of association between claim and prior research	1.37%
10. Sampling errors	0.55%
<b>II. Language-use comments (43.72%)</b>	
<b>A. Lexis and syntax comments (33.06%)</b>	
1. Not well written/use of English	7.92%
2. Lack of clarity	6.83%
3. Typos or suggestions for text editor	6.28%
4. Verbosity	4.92%
5. Repetitions	4.37%
6. Incoherent	2.73%
<b>B. Discourse and rhetorical comments (10.66%)</b>	
7. Improve information flow	4.92%
8. Up tone or give more salience to novelty feature	3.83%
9. Down tone claim or hedge	1.91%
<b>Totals</b>	<b>100.00%</b>

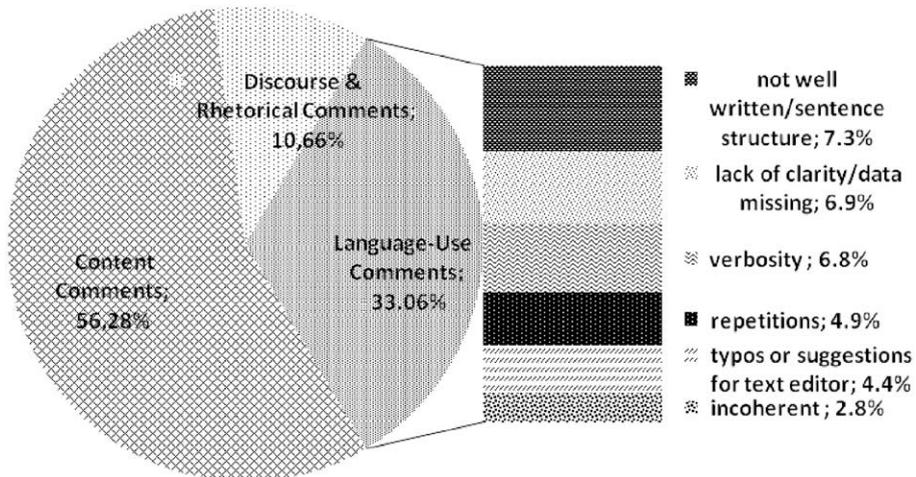


Fig. 1. Breakdown of language-use comments (II) into sub-categories.

### 3.3. Examples of reviewer comments

#### 3.3.1. Content comments (section I of Table 3)

Comments about content (56%) constituted over one-half of all the comments counted. This is not unexpected since the role of the peer reviewer is to critique the content. The most frequent errors found were those of the lack of procedural rigor, incomplete literature and errors of claim (all about 9.0%), followed by scientific reasoning errors of the author’s own data (5.5%) and lack of explanation about why the data were unusual

(8.5%). This last category of reviewer comment might appear to be a language comment but both the reviewer comment and the manuscript itself, led us to believe this category refers to the scientific content of the manuscript.

Occurring with about the same frequency were errors of terminology (5%), statistical irregularities (3.8%), and incorrect interpretation of the scientific literature (3.6%). The relevance of the literature review to author claims was criticised in 1% of the comments. Praise about content was also seen in 5% of the comments and praise was often followed by specific criticisms, as noted by Belcher (2007). Other categories of content and methodological criticism of the manuscripts are given in Table 3.

### 3.3.2. Language-use comments (Section II of Table 3)

Language-use comments comprised 44% of the entire corpus of comments and could be differentiated into two distinct sub-categories: the first were lexis, grammar and syntax comments, which for practical purposes might be considered comments on sentence structure (33%). The second sub-category referred to comments above the sentence level (11%) and comprised criticisms of text structure relating to moves, discourse, and rhetorical features.

3.3.2.1. *Comments on lexis and grammar (Section II items 1–6)*. The most frequent language-use comment was *Not well written* (7.9%), identified as II.1 in Table 3, as seen in Example 3, where the reviewer complains about language use, specifically referring to preposition choice and lexis:

**Example 3:** *...non-standard English is used throughout the manuscript... so much so that it prevents, at times, the manuscript from being comprehensible. Similarly, “confined in” should be “confined to” and “bases %o” should be “basis %o”.*

The next frequent comment was *lack of clarity* as in II.2, (6.8%). In Examples 4 and 5, the reviewer offers suggestions for syntactic composition of the sentence to improve clarity:

**Example 4:** *Also, it would be clearer if the sentence “advantages over [TD], it is simpler” were broken up into two sentences.*

**Example 5:** *Also, page XX, line YY, the author uses the expression “resampled at 125 samples per second”. Does this mean “interpolated to 125 Hz”? Also the last sentence page WW, line ZZ (“this issue... at the LFP level”) is difficult to follow and does not make sense.*

Example 6 also shows the co-occurrence of two categories often found together: both *lack of clarity* (II.2) and the least common category *incoherent* (II.6 2.7%), where the reviewer finds the text incomprehensible. Authors are asked at times to spell out more precisely what they mean. One such instance of this is seen in Example 6 below:

**Example 6:** *It needs to be stated more clearly, what [TD] means. The definition needs to be rewritten. Do the authors really mean [TD<sub>1</sub>] or [TD<sub>2</sub>]. I also feel that the use of the term “selected patients” should be avoided and that more precision is required.*

This example demonstrates some of the difficulty we faced in categorizing our comments since one of us considered this a simple language comment requesting further clarity while the other considered it a content comment. After discussion, we agreed that the comment was aimed at introducing a more precise definition, and thus fell in the sphere of language rather than a content comment. Had the reviewer said that a definition was missing, then it would have been considered a content comment. This example, which demonstrates overlap between language and content comments, also shows the way in which we used not only the comment but also the reviewer’s justification to guide our classification of the comment.

The comment category II.3 *typos or suggestions for reformulation by the text editor*, of Table 3, was the next most frequent category and constituted roughly 6.8% of comments. Below are two instances of this comment category. Example 7 shows formatting suggestions as well as a suggested lexical choice (category II.1) in the replacement of an adjective. Example 8 contains a spelling correction:

**Example 7:** ...[A] should add a *Table 2* and place the numeric values there, then do not repeat the data in the text but refer to the Table. These two protocols are better described as “short” rather than “brief” antibiotic regimens.

**Example 8:** Also, please correct the spelling in line XX, “In the some (same)way...” and the expression “another colture/culture” needs to be changed.

Verbosity (II.4) and *repetition* (II.5) accounted for 7% and 5%, respectively, of comments and several instances are given in Example 9. Although we could have combined these two categories, we opted to keep them separate since verbosity we took to mean the over-use of words, that is cases where something could be said with fewer words. Repetition instead, means the repeating of a concept, datum or sentence.

**Example 9:** Also [A] still need to dedicate a fair amount of work to render the paper more concise and easier to read. Also here are several suggestions to shorten and focus the discussion...

The paragraph from line XX to XY is not necessary since it is a repeat of the text in line YY...besides this, the last sentence is unnecessarily long and needs to be rewritten.

3.3.2.2. *Comments on discourse and rhetorical features (Section II items 7–9).* Roughly 11% of peer reviewer comments were observations on text structure pertinent to improving readability. Reviewers preferred that information should be presented in a way that will help orient the reader and distinguish between what the authors consider more or less important, as in category II.7 (*improve information flow*) and in Example 10 below:

**Example 10:** The methods section still requires a fair bit of work on the reader’s part to fully understand the experimental approach. It is preferable to describe the study design prior to the description of...

Another useful reading aid is the use of meta-discoursal organisers or signposts, to improve information flow such as in Example 11:

**Example 11:** Perhaps what would be helpful is to outline the article, using first... second... next...etc. It would also be nice to display... as a column chart and enables the reader to tell the differences among the different groups.

The reviewers in Example 12 advised restructuring the discussion to formulate a rationale for the finding, so as to give salience to the novelty of the finding (category II.8). The discussion section of research articles usually contains author findings and the major claim with its wider implications, with possible explanations in the light of comparison with other studies. Requests for improvements in the discussion, to enhance the validity of author findings were seen in 4% of the comments corpus:

**Example 12:** ...While I think the conclusion is right, the discussion could be more sophisticated. For example, the results presented here are in disagreement with earlier reports. The potential basis for why these results are different should be first mentioned and more effort made to highlight those aspects of the study which might account for these differences...

In order to enhance the validity of their results, they need to evaluate [TD]... and these data should be presented.

Features dealing with author stance such as the strength of author claims were addressed in the category II.9. Achieving a balance between strength and modesty of a claim is difficult so authors must tread a fine line between the two, using appropriate language. As we can see from Examples 13 to 15 below, reviewers evidently found that claims were often too strong and suggested a hedge or downtone so as to leave room for dialogue with the reader to disagree or negotiate an alternative claim:

**Example 13:** authors should insert the word “probably” in the claim declaration [TD], line xx, page 00: these could increase [TD] levels and probably insulin sensitivity.

Again the reviewer is not happy with the over-confident tone of and suggests it should be downtoned:

**Example 14:** *...in the first paragraph, the authors write "...thus demonstrating that [TD] controls the improvement". I am not sure about this especially with the use of the verb "controls" since it seems to me that the maximum they can claim is ...[TD]. Also, this conclusion should be softened as the results do not demonstrate...*

#### 4. Discussion

Our data confirm the opinions of others such as Sionis (1995) on French scientists, Mišak, Marusić and Marusić (2005) on Croatian medical manuscripts, Kourilovà (1996) on Slovak manuscripts, and Gosden (2001) that NNSE appear to have both language and scientific methodology problems when they prepare manuscripts for international journals. Which of the two is the predominant reason for rejection is difficult to establish and we do not wish to suggest causality between reviewer comments and publication outcome. According to Bordage (2001) the most frequent reason for rejection is content-based defects such as poor study design or ignoring the literature, but he also includes poor writing as just one of the reasons. However, his corpus, which examined medical education manuscripts, did not identify authors' L1 whereas our manuscripts were all written by NNSE and nearly all eventually published. Nevertheless, it is interesting to note that 56% of our corpus pertained to comments on content.

Although it is difficult at times to distinguish between content and language errors, we found that roughly 44% of criticisms by peer reviewers to Italian researchers' submissions were language-based (that is in the spheres of semantics, syntax or discourse), whereas 56% criticised scientific content or method. Since the leading reviewers' objections on language-use were "poorly written text" and "lack of clarity", it is evident that the ability to describe procedures and to express concepts clearly is of prime importance. As a group, the researchers observed in this study appear to have difficulty in articulating their thoughts concisely since the categories of repetition and verbosity when taken together account for over 10% of negative comments, a question which certainly merits further study. This group of Italian scientists appears at times unable to judge the potential significance of their findings as seen by the frequency of uptoners (4%). At times, they appear overconfident, evoking downtoners (2%) by the reviewers. This under- or over-estimating the significance of the finding appears to be a serious problem and may be peculiar to this group alone or to the Italian scientific community, a question which merits further investigation.

We do not by any means wish to suggest that one category of comment is inferior or less important than any other. While we did not set out to observe how authors incorporate suggestions into the manuscripts, it appears that language-use comments generally produce immediate acceptance whereas rejection appears more frequent among content comments. We do not have statistical data to support this idea, but it appears reasonable to expect that text changes which improve clarity, pragmatic functions and readability would tend to be accepted.

In considering author response to reviewer comments, authors whether central or periphery researchers, generally want to get published and therefore, are willing to incorporate suggestions (Belcher, 2007). This is what Gosden (2001) calls "compliance" and he suggested that compliance with reviewer criticism can be attributed to a willingness to engage in dialogue to help the process of construction of scientific knowledge by looking on a criticism as a suggestion intended to improve the text and which may even provide new insights into the research topic (Li, 2006). For young researchers puzzled or intimidated by reviewer comment, we would recommend analysis to uncover the intention behind the comment itself – that is, whether it pertains to the methodological sphere, such as a content comment or whether it is a language-use criticism and requires a simple change in wording or a more radical alteration to improve text moves and information flow. Authors may need to discuss the comments with the editor and occasionally defend their own position when they feel this is justified although this may be a cultural break from their intellectual traditions, (Galtung, 1981; Koutsantoni, 2007). Thus, though reviewer comments may contain face-threatening acts (FTA) (Brown & Levinson, 1987; Knorr-Cetina, 1981), we have seen that expressions of praise, although not numerically frequent, (3% of reviewer comments of our corpus) are widely distributed throughout all the manuscripts, and any criticism that follows is generally mitigated since it serves the gate-keeping function of intellectual and academic rigor and authors need to bear in mind that the ultimate aim is to improve the final version of the paper.

Our list of the most common errors is revealing in that it may inform authors about what editors and reviewers are looking for in manuscripts. The question arises as to what they consider “interesting”. From some of the comments, it seems that reviewers’ praise included references to “novelty” and “valid findings” which “added to the knowledge” of the scientific community. Other positive features mentioned are “rigor” and “strength”. The requests for additions to the text, rather than expressions of criticism, are often meant to enhance the validity of the publication. Reviewers thus encourage the authors to highlight new findings. On the negative side, we note that in one case, (lack of) clarity of presentation was an important factor in the decision to reject a manuscript.

The study design of this paper may have introduced an element of bias in the area of investigation since we used not one but several subject-specific disciplines. It is possible that, for example, surgical journals might differ from medical journals in editorial philosophy and thus the types and categories of reviewer comments. Further research is needed in this area.

Finally, our classification of major errors in manuscripts produced by Italian medical and clinical research scientists may be helpful in the preparation of courses or materials for training future researchers. Teaching activities such as summarizing, re-writing a draft publication, meta-cognitive techniques such as scaffolding, for example, in creating flow-charts for a scientific procedure or the methods section in a clinical trial, and critical reading of different types of research studies may help counteract the tendency of students to be verbose, repetitive or unclear – first in thinking then in writing academic English. Our list of most common errors might also be useful as a kind of language checklist, which together with methodological checklists, would improve authors’ chances of publishing in high impact-factor journals to avoid an under-exposure of Italian research, published in international journals, affecting funding for research (Man, Weinkauff, Tsang, Sin, & Hogg, 2004) and avoiding the downgrading of Italian scientific research to the “grey” literature (Cook et al., 1993; McAuley, Pham, Tugwell, & Moher, 2000).

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