UNIVERSITAT DE VALÈNCIA
Facultat de Filologia, Traducció i Comunicació

Departament de Filologia Anglesa i Alemanya
PhD Program: “Oralitat i escriptura: llenguatges especialitzats dins de l’àmbit anglo-germànic”

A GENRE APPROACH TO ELECTRONIC RAPID RESPONSES FROM THE ONLINE BRITISH MEDICAL JOURNAL

Doctoral Thesis

Submitted by Ingrid Carolina Garcia Ostbye

Supervised by: Dr. Barry Pennock Speck
Dr. Jordi Piqué i Angordans

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For Carmen Roggen, Amalia Roggen and Vicente Robillard,
of beloved memory.

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Socrates: ... Then medicine also treats of discourse?

Gorgias: ... *Yes.*

Plato[1]

[1]Gorgias By Plato Written 380 B.C.E. Translated by Benjamin Jowett

http://classics.mit.edu/Plato/gorgias.html

Table of Contents

Index of Tables

Index of Figures

Index of Acronyms

- Acronyms in Dissertation

BMA	British Medical Association
BMJ	British Medical Journal
CARS	Create a Research Space
CDA	Critical Discourse Analysis
CMC	Computer Mediated Communication
DOAJ	Directory of Open Access Journals
e-Article	Electronic Article
e-Cluster	Electronic Cluster
e-E	Electronic Editorial
e-Editorial	Electronic Editorial
e-Genre	Electronic Genre
e-Health	Electronic Health
e-Innovation	Electronic Innovation
e-Journal	Electronic Journal
EMC	Electronically Mediated Communication
e-RR	Electronic Rapid Response
e-Rapid Response	Electronic Rapid Response*
e-RA	Electronic Research Article
e-Research Article	Electronic Research Article*
e-Responder	Electronic Responder
e-RRRA	Electronic Rapid Response to Research Article
e-RRE	Electronic Rapid Response to Editorial
EAP	English for Academic Purposes
ESP	English for Specific Purposes
HINARI	Health InterNetwork Access to Research Initiative
ICT	Information & Communication Technology
IRC	Internet Relay Chat

ISI	Institute for Scientific Information
NS	Native Speaker
NNS	Non- native Speaker
OA	Open Access
PIRA	Printed Introduction of ResearchArticle
PLoS	Public Library of Science
PhDTI	PhD Thesis Introduction
PPORD	Post-publication Online Review Debate
RA	Research Article
RECON	Relationships and Confidence
SA	Social Acknowledgement

* A two-fold acronym system has been used in this dissertation to be employed discretionally in both the text and in Figures and Graphs to avoid difficulties –caused by the presence of a high number of acronym occurrences in text segments.

Thesis Summary

A GENRE APPROACH TO ELECTRONIC RAPID RESPONSES FROM THE ONLINE BRITISH MEDICAL JOURNAL

This study is undertaken as a practical instance of Comparative Discourse Analysis. Within Genre-Analysis, a field within the tradition of Discourse Analysis, this thesis first quantitatively characterizes word frequency in a corpus of Electronic Rapid Responses (*e-RRs)* in the British Medical Journal (*BMJ*). It then examines differences in the organization of discourse in two of the medical subgenres in the journal, *Electronic Rapid Responses to Editorials (e-RREs)* and *Electronic Rapid Responses to Research Articles (e-RRRAs).*

The corpus for the quantitative study is comprised of 1,750 *e-RRs* retrieved in 2006; word frequency, text-type length, sentence number & sentence length are estimated. The corpus for the qualitative study comprises 200 texts, examples of expert-to-expert communication, 100 *e-RREs* and 100 *e-RRRAs*.

The cross-genre study yields subtle differences in terms of sentence length & text type length and qualitative differences in the most frequent words in the subcorpora. The analysis in the qualitative study shows a common generic structure for *e-RREs* and *e-RRRAs,* stemming from epistolary genres with similar range of strategies, but significantly different at a strategy level.

This thesis provides evidence to support the view that major contextual factors influence online medical subgenres such as *e-RRs*. Along with subject matter, purpose, an allegedly worldwide audience and medium of discourse, the content

of *e-RRs* as review subgenres seems to be influenced by major social factors such as scientific norms, conversational maxims and an online context. In this sense, this thesis is a contribution to research in the field of social factors in genre analysis and in that of review genres in medicine.

Key words:

Genre Analysis, Medical Discourse, Electronic response, Social factors, Computer Mediated Communication

CHAPTER 1.

INTRODUCTION

1.1 General aim of the thesis

The main aim of this dissertation is to offer a corpus-based linguistic description of electronic Rapid Responses *(e-RRs)* in the British Medical Journal, more specifically, it aims at providing a synchronic picture of e-Rapid Responses to online editorials and research articles. Computer Mediated Communication (CMC) in the field of medicine yields an array of hybrid online genres among which *BMJ* electronic rapid responses as an epistolary subgenre should be included. The rhetorical organization of these newly emerged subgenres in the field of medicine has not been extensively researched and, to the best of our knowledge, no study has attempted a quantitative & qualitative approach to *e-RRs* on *thebmj.com*. The research referred to in this thesis is an attempt to fill this gap. Hence, in broader terms, I would like to contribute to the study of electronic English for medicine, specifically the purely online medical subgenre of *e-RRs*.

This study focuses on *e-RRs* to online Editorials & Research articles on *thebmj.com* as emerging online subgenres in the field of medicine due to the fact that they are key constituents of the *BMJ* post publication review process in the digital era.

In the following paragraphs a broad framework of e-Rapid Responses, the object of study of this thesis, is offered. As they pertain to Electronic English for Medicine, e-Rapid Responses can be assumed to lie somewhere within the space where three fields overlap; namely, English, Medicine and the Internet.

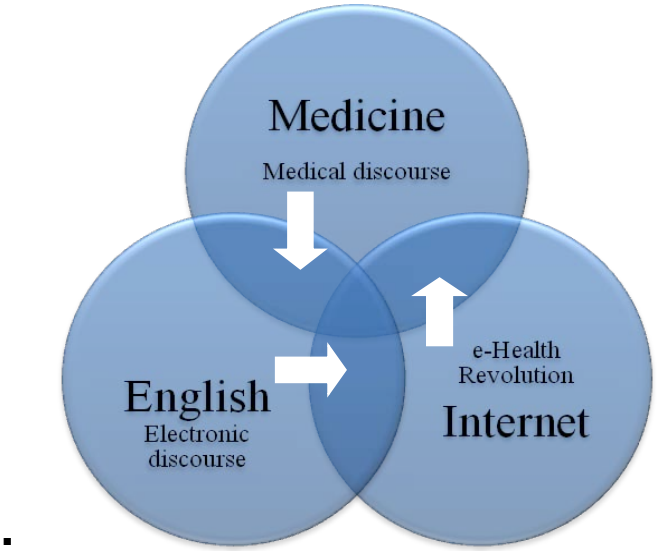


Figure 1.1. Framework for the research

E-RRs are a recently emerged and understudied e-subgenre in the medical field, as such they may share some characteristics –and be similar to or different from- those existing in printed Academic English traditions. They seem to be related to, and/or stem from, the following academic literature traditions, English for Medicine, English for Academic Purposes, peer publication reviews, electronic debates on health topics and Internet English. These will be looked at in the next chapter, a review of the related literature.

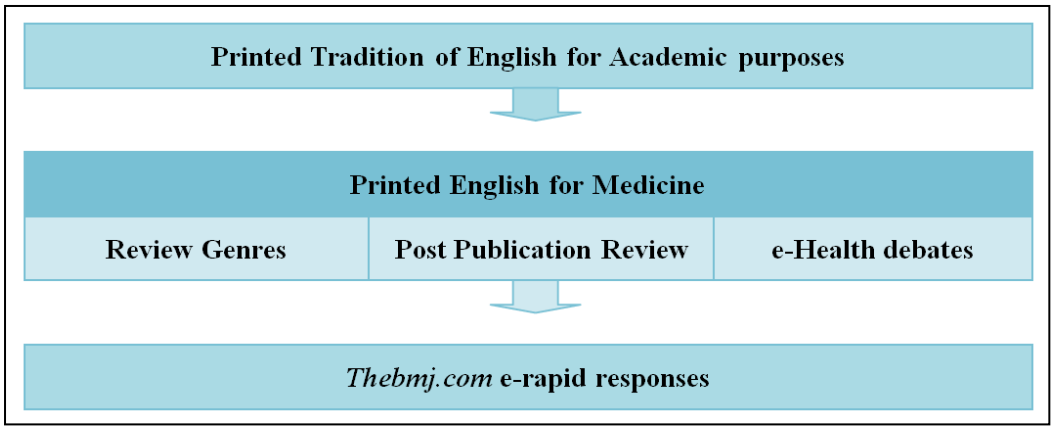


Figure 1.2. Traditions framing *thebmj.com* e-Rapid Responses

The analysis aims to contribute to ascertaining whether these emerging electronic genres, Electronic Rapid Responses to Editorials *(e-RREs)* and Electronic Rapid Responses to Research Articles *(e-RRRAs)* stem from those that characterize the printed medical tradition; with reference to the communicative situations in which they take place.

This study aims to supply quantitative data on *thebmj.com e-RRs* and reveal their rhetorical structure; as constituents of the online post publication review process of editorials and research articles. Thus, emphasis has been placed on the rhetoric of *e-RRRAs* and *e-RREs,* as an analysis of their rhetorical structure –in the framework provided by genre analisis– may eventually contribute to medical scientists' awareness of the existing academic conventions and rhetorical strategies, and hence, contribute to medical scientists' eventual participation in open post-publication review of e-articles and in e-health debates in electronic journals.

To summarize, the general aim of this thesis is to explore a recently emerged e-subgenre in the field of electronic English discourse, that of *BMJ* electronic rapid responses as part of the *BMJ* open initiative. In other words, it aims to contribute to the study of new e-subgenres in the field of medicine, particularly of those which, among others, embody the recently emerged open review movement in electronic journals such as *thebmj.com*.

This study may be relevant to experts in medicine, lay medical professionals, *BMJ* readers, and ESP linguists interested in the analysis of online genres, English for Academic Purposes and Internet English. Research, which may help raise awareness

of these features among scholars, experts in medicine and the broader *BMJ* readership and eventually contribute to a fuller and better online post-publication review process in the fields of research in medicine, and to a fuller and better accommodation of new knowledge in the medical field.

1.2 Rationale for the research

The dramatic growth of Open Access (OA) has meant that over 9,171 peer-review open access journals, from 134 countries, covering all areas of science, technology, medicine, social science and humanities are listed in the DOAJ (Directory of Open Access Journals). Open Access (OA), in the context of scholarly publishing, has been defined as "unrestricted online access to articles published in scholarly journals". Here it is used to refer to scholarly, peer-reviewed journals in which all content is made available on the web, either exclusively online or together with a subscription print version.

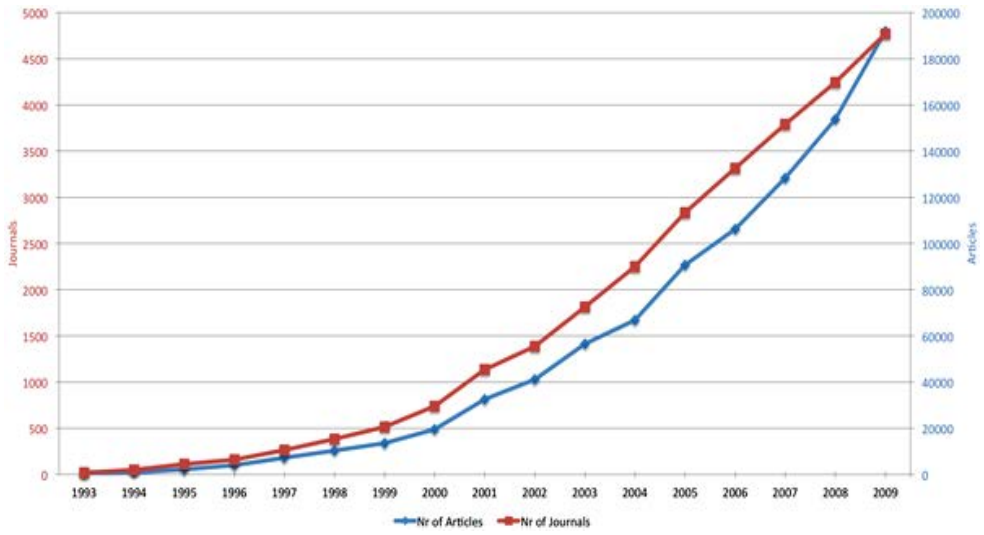


Figure 1.3. The development of open access publishing 1993-2009 (from Laakso, M et al; 2011: pp 1)

Previous research has distinguished between Gold Open Access and Green Open Access. Green Open Access entails self-archiving of the author's work –by, for example uploading a version of an article to the author's personal homepage or to an institutional repository. In Gold Open Access the document is made available by the Publisher, which means that the content of the actual journal publishing the article is either totally or to some extent freely accessible to the public. Direct Open Access – which is estimated to account for 62% of all Gold Open Access–entails that the whole journal is Open Access without any limitation. Delayed Open Access, which is estimated to account for 14% of all Gold Open Access, exists when the most recent content is made accessible only to paying subscribers, but over the passage of time, the restriction or embargo is lifted and the content is made available to all. Hybrid Open Access entails that an author or the author's institution pays for an article to be made freely available in an otherwise subscription-based journal. Hybrid OA is estimated to make up 24% of all Gold OA within digital communication.

Although, in medicine, 2010 estimations of Gold OA articles have reached 13.9% and of Green Open Access 7.8% (Björk B-C et al, 2010), extrapolation of OA curves for the next two decades estimate yearly increases of 20-30% and indicate that the different types of OA would reach 100% in 2022 and 2029 respectively. In addition, there are also substantial increases in Green OA self-archiving (Poynder, 2011).Estimates[2] are displayed in Figure 1.4. below:

[2] From http://www.richardpoynder.co.uk/Open_Access_By_Numbers.pdf (last accessed January 8, 2014)

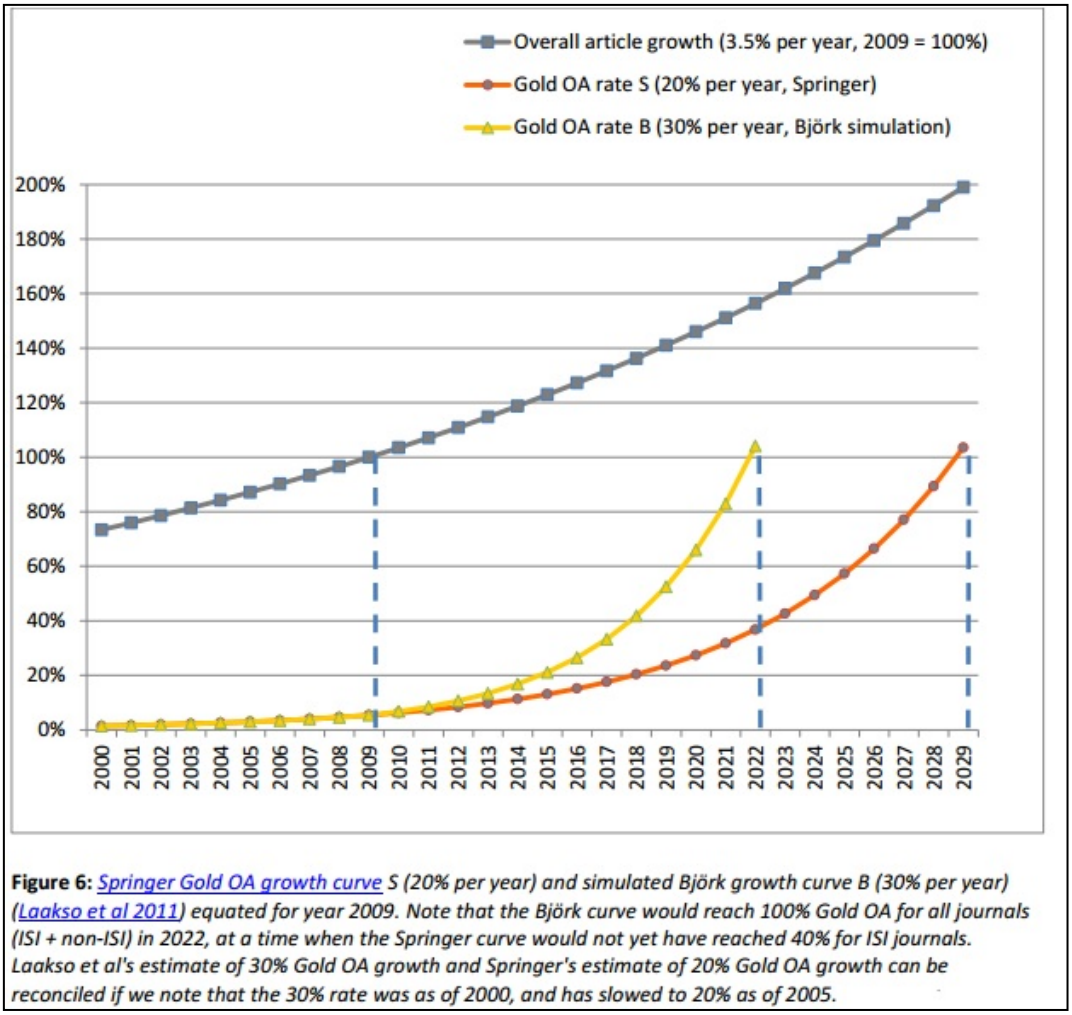


Figure 6: *Springer Gold OA growth curve S (20% per year) and simulated Björk growth curve B (30% per year) (Laakso et al 2011) equated for year 2009. Note that the Björk curve would reach 100% Gold OA for all journals (ISI + non-ISI) in 2022, at a time when the Springer curve would not yet have reached 40% for ISI journals. Laakso et al's estimate of 30% Gold OA growth and Springer's estimate of 20% Gold OA growth can be reconciled if we note that the 30% rate was as of 2000, and has slowed to 20% as of 2005.*

Figure 1.4. Springer and Björk Open Access rates

The long-standing academic standard of double-blind peer review has shaped the process of accepting new knowledge within scientific fields. Great efforts are being made to transform this process and open it up. In this sense scholars and academics have been calling for “open access” as a means to overcome the divide between rich and poor researchers, institutions and countries. Some have also called for “open review” as a way to break down some of the access barriers that conform knowledge production, its judgment and its availability to readers.

Online peer review is a long way from being totally implemented as an alternative to traditional peer review. Journal initiatives that experiment with it favour hybrid solutions, considering it a helpful, parallel process which provides input from a wider audience and focuses on details that most reviewers may have overlooked before submitting a paper for review and publication (Timmer, 2006) or parallel in time to the review process (Nature 2006 Open trial). Its full implementation faces problems among which we can include low levels of authors' willingness to go public for online comment. *BMJ e-RRs* constitute one of the existing options of realization of this online post-publication review process.

E-RRs have been chosen for the present research because of their importance in the online *BMJ* post publication review process and for their relevance in the accommodation of new knowledge within the *BMJ* community, medical research and medicine in general. In the future, they are likely to constitute a complementary key medium for the legitimation of claims and new knowledge in the medical sciences.

1.3 Background to the thesis

1.3.1 The e-Health Revolution

The past 50 years have witnessed significant gains in health all around the world, due to advances in science, technology, medicine, expanded infrastructures, rising incomes and better nutrition, sanitation and literacy. But in many countries fundamental conditions for health have not been achieved –peace, shelter, education, food, income. The global health picture today is one of extreme

diversity and inequity, with increasing long-standing gaps between the health status of the wealthy and that of the poorest sectors of the population.

E-health has been defined as the use of emerging ICTs, noticeably the Internet, to improve or enable health and health care (Eng, 2000). In medicine, commercial, industrial, and scientific spheres of activity increasingly high levels of computer presence have been revealed; indeed computers and information technologies are becoming omnipresent in medicine and research in this digital world. Hence, ICT is essential for health systems to meet their obligation to deliver care, and monitor public health; it helps the coordination of complex activities, ensures quality, fosters collaboration and knowledge sharing. Its value lies in the information exchange it can provide and its capacity to bring people together, building partnerships and joint programmes of action. Health care, therefore, has a potential for improvement through e-innovation; e.g: electronic medical records, electronic databases or computerized clinical decision-support systems have been developed for a myriad of clinical issues. The emergence and widespread use of medical e-journals is one of the developments that originated in the e-health revolution. This journal, *thebmj.com*, will be referred to in the next section.

1.3.2 The British Medical Journal

The *BMJ* (British Medical Journal) is an international peer reviewed medical journal. It is published weekly by the British Medical Association (BMA)[3], has

[3] *BMJ* is considered to be one of the 'core' general medical journals; other journals in this group are the *New England Journal of Medicine* (N Engl J Med), the *Journal of the American Medical Association* (JAMA) and *The Lancet*. The *Canadian Medical Association Journal* (CMAJ) and *Annals of Internal Medicine* have also been included in this category by some authorities.

broad worldwide readership[4], and it is indexed by all the major services (e.g: PubMed, MEDLINE, EBSCO, ISI).

The *BMJ*'s Impact Factor is 17.445 (ISI Web of science 2015); it was 9.245 in 2006. The *BMJ* publishes articles from doctors and others from anywhere in the world. Only about 7% of the 7000-8000 articles submitted are published each year.

The *BMJ* is characterized by a continuous "online first" publication model, which means that all articles appear on *thebmj*.com before being included in an issue of the print journal. All the *BMJ*'s original research is published in full on *thebmj*.com, with open access and no limits on word counts. The full text of every research article published in the *BMJ* is immediately accessible on *thebmj*.com through open access, for everyone. Moreover, the journal is committed to keeping research articles openly accessible.

The *BMJ*'s mission is to lead the debate on health and to engage, inform, and stimulate doctors, researchers, and other health professionals in ways that will improve outcomes for patients. It aims to help doctors in decision-making. And its vision is to be the world's most influential and widely read medical journal.

The highlights of the *BMJ* are the print content, supporting material for original research articles, additional news stories, and electronic letters to the editor. Its website is updated daily with a range of articles which includes original research articles, education articles, news, letters, review articles and comment articles on

[4] The BMJ visitor statistics were 656,118 in 2006

the clinical, scientific, social, political, and economic factors affecting health. It also publishes podcasts, videos, blogs and electronic rapid responses. Its website underwent some design changes in November 2011; there were also some changes to access controls in January 2012. A *BMJ* sample webpage is illustrated in Figure 1.5. below[5].

Figure 1.5. A sample *BMJ* webpage

The *BMJ* has a long history[6], which is outlined below:

1840 The *BMJ* began as the *Provincial Medical and Surgical Journal* -printed *BMJ*- and has been published without interruption since then.

1995 The *BMJ* became the first general medical journal to launch itself into cyberspace as *BMJ*.com. All its issues have been archived on the web since then.

[5] BMJ webpages include interactive facilities like links to e-rapid responses, citations and services.

[6] From *bmj.com* (last accessed 07/29/2015)

1999	All content of *BMJ* was made freely available online in 1999.
2005	*BMJ* keeps research open access but starts to charge for non-research content.
2006	The *BMJ* changed to a subscription model. Original research articles continue to be available freely, but from that date onwards, all other 'added value' contents, including clinical reviews and editorials, required a subscription[7]. Access restrictions were lifted a year after publication. *E-RRs*remain open accessible.
2008	The *BMJ* announced it would become an open access journal –this only referred to research articles. It allowed complete free access for visitors from economically disadvantaged countries as part of the HINARI initiative.
2009	Since this date every *BMJ* article published has been available online from *BMJ*.com in the *BMJ* archive and PubMed Central. Non-research articles in the archive have required a subscription. Subscribers and BMA members have access to all archive content from the current issue back to 1840.
2011	*BMJ* launched as an online, author-pays, open access journal.
2012	Most *BMJ* revenues originate from outside the UK. The group now has editorial, sales and support staff in a dozen countries, with major business and editorial centres in the US and India.
2013	The *BMJ* launches an initiative to champion partnership between doctors and patients in healthcare and research.
2014	Interactive graphics launched on *thebmj.com*
2015	The BMJ website celebrates its 20th Birthday with an anniversary editorial, accompanying feature and podcast, and an infographic charting its online history.

The *BMJ* website policy nowadays is that of publishing most e-letters (*e-RRs*) to the journal.The interface of *thebmj.com* is formatted like a fully moderated Internet forum.

[7] The *BMJ*'s sources of revenue include subscriptions from institutions and individuals, advertising for jobs, courses, pharmaceutical and non-pharmaceutical products, events (exhibitions, sponsorship, and visitor fees), sale of reprints, rights, royalties and sponsorship. All authors are asked to pay an Open Access fee of £2500 on acceptance of their paper. *BMJ* has a waiver policy for authors who cannot pay, the consideration of their research articles is not related to ability to pay the fee.

1.3.3 The British Medical Journal review policy

Peer reviews have existed since the 17th century. They have remained anonymous for centuries and accessible only to a selected group of members in the scientific community (Posteguillo, Piqué-Angordans & Edo, 2008). Peer review is present in most professional journals; however, it did not evolve into an institutionalized process until 1940s. Through peer review the editorial board and referees try to guarantee that research reports and different types of articles are worth publication, assuring a quality product. Swales (1996) considered it as an "occluded genre". In this peer review system "expert knowledge-holders, knowledge-builders and factual reporters" (Salager-Meyer & Alcaraz Ariza, 2011) have played a major role as referees and gate keepers. These authors have addressed the wide context of the rhetoric of science. According to these authors (ibid 2011:1)

> The study of the rhetoric of science is thus concerned with persuasive communication and the relation between text and power. To have power in the scientific community is not only to be able to persuade the community of the correctness or probability of one's own truth claims, but also to be able to refute peers' claim with robust, well-founded arguments. Indeed, the rhetoric of science is essentially discussion-oriented, i.e., *dialogical*, in the sense that the quest for the unbiased "truth" …demands a consequent skepticism towards established truths.

The peer review system has been questioned in the last few decades, claiming the need to make it more democratic and less biased towards private interests (Godlee & Jefferson, 1999; in Piqué-Angordans & Camaño-Puig, 2008).

The *BMJ* has an open peer review policy, which is a very important quality factor for journals and authors. First, this means that reviewers are asked to sign their reports and declare any competing interests on any manuscripts they send. Second, reviewers advise the editors, who make the final decision. *BMJ* articles

can eventually be externally peer reviewed. Peer review by editors and external reviewers on research and other scholarly articles can be appealed and many appeals succeed. For opinion articles, where editorial judgement about readability and engagement weighs most heavily, an appeal is less likely to overturn the editorial decision. The *BMJ* peer review process is illustrated in the report excerpt below:

> The paper went through detailed peer review and was seen by expert reviewers active in this field. It was also seen by a statistics editor with specific expertise in this type of research methodology, and was accepted at the *BMJ*'s research manuscript committee meeting (subject to revisions, which the authors then made).
>
> At the revision stage the authors responded thoroughly to all comments made by peer reviewers and the *BMJ*'s research editors and statistics editor. One request was for the authors to conduct a standard meta-analysis in addition to their network meta-analysis. This additional analysis was published as web extra 2 alongside the article on *BMJ*.com […] The criticisms raised in the rapid responses mainly address possible unmeasured confounding factors, and hence continue the debate but do not negate the findings of the study.
>
> [BMJ 2010; 341: c4675]

The open Peer Review process constitutes a new era of implementation. Experimentation in Pre and Post Publication review of scientific publications is

taking place[8], and many new innovations in scholarly publication are being tried throughout the world.[9]

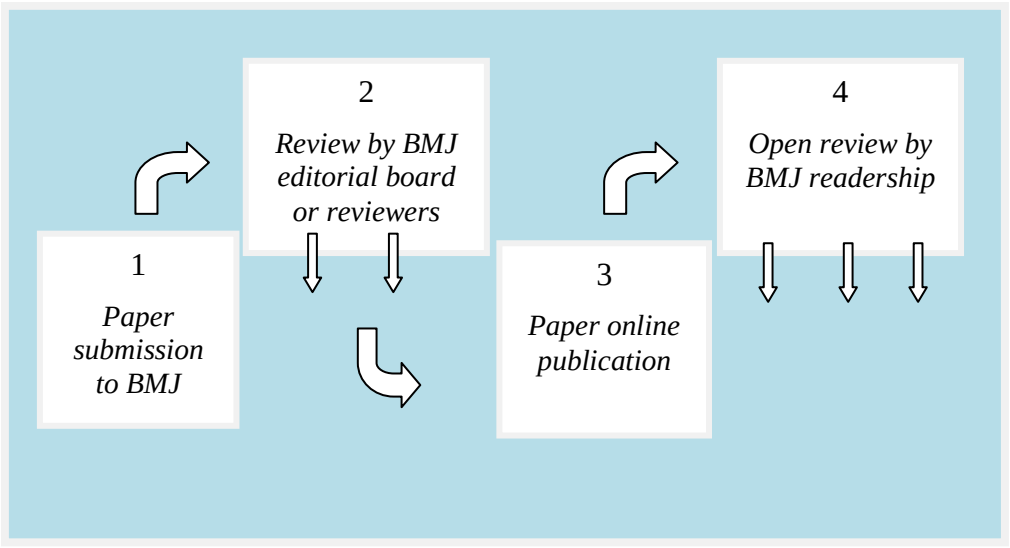


Figure 1.6. The *thebmj.com* Review Process

Third, as far as post publication review is concerned, very few journals have a system like the *BMJ* or Annals of Internal Medicine Rapid response system. At the *BMJ*, elctronic Rapid Responses are a way of carrying out the continuing appraisal of published articles. Perfect peer reviews are rare because reviewers are not likely to be experts in all aspects of the studies reviewed. They may fail to discover some flaws, and flawed papers can be cited uncritically. That is the reason why rapid responses have a complementary purpose. Post-publication review remains important in the identification of statistical errors (Delamothe T, Smith R; 2002) and unconsidered possible biases (Bydder S et al; 2000).

[8] http://www.bmj.com/rapid-response/2011/11/02/open-peer-review-process-new-era-experimentation-pre-and-post-publication-last accessed April 4th 2012

[9] *Nature* (Schriger, D et al, 2010) tried an open review experiment in 2006 –with an acceptance rate of 74% among authors, who recognized that their paper had improved-, then *Lancet* (2005) and now *Shakespeare Quarterly* has tried an open review method of peer review by MediaCommons Press.

1.3.4 Open Post Publication Review Debates

On their launch, electronic rapid responses (e-letters to the editor nowadays) were seen as the solution of *BMJ*'s need to provide opportunities for timely debate after the online publication of a paper. Previously, only about one third of the letters to the editor received had been published, and those about six months late.

The *BMJ* welcomes different types of responders: doctors, patients, health professionals, non-doctors, people from the UK, people from other countries, members and non-members among others. The e-rapid response was, and still is, an arena where the interplay of the e-responder agency in the review provided and the role of previous academic production is revealed.

At *thebmj.com* e-Responses can be edited before and after publication, although minimal editing is done. In this way, the onus for correct spelling and punctuation is placed on the authors, and the author's name is published with each e-response.

> Marking the publication of the 20,000th response in 2002, the BMJ judged the experiment a success, even suggesting that rapid responses might point towards new models of knowledge creation, although the standard was not uniformly high and a few individuals seemed to be commenting on almost everything, but in 2005 the editorial policy suffered a major change:
> Having now posted our 50000th rapid response, both the upsides and the downsides have become more obvious. The upsides are that rapid responses allow important criticisms to be made immediately after publication and that this form of peer review can continue indefinitely. Groups beyond the print journal's usual readership (such as patients and readers outside the United Kingdom) can contribute, and discussions can range beyond the original findings to suggest new avenues of research. […] The main downside of rapid responses is that the bores are threatening to take over. Some responders feel the urge to opine on any given topic, and pile in early and often, despite having little of interest to say. Others have pet topics, which they return to obsessively, finding almost any peg to hang their views on. Some responders don't seem to feel they're really alive until they've sparked off an angry response from someone else. Rows then continue for longer than interests anyone other than the combatants. Attacks on views can move swiftly to attacks on the holder of those views; these were often continued via abusive emails until we stopped posting email addresses with responses. Our impression was that the overall quality of responses was falling. Responders whose views may have been worth reading told us they weren't contributing because of the conditions of engagement
>
> (Davies, Sharon; Delamothe, Tony, 2005).

Their solution was to enforce more rigorously their original criterion for publication, namely that a response contributes substantially to the topic under discussion, which meant raising the threshold for acceptance, and merely reaffirming their editorial responsibility to readers; i.e., by filtering out some of them to encourage more thoughtful and reasoned postings. They recommended that responses be no more than 500 words in length and never longer than 1000 words as these would not be published, and their preferred limit for letters in the paper journal, which were at the time all selected from the rapid responses, was 250-300 words.

Nowadays, to respond to articles, *thebmj.com* readers are required to submit letters to the editor as rapid responses. They can use search on *thebmj.com* to find a particular article and then click on the link at the top of the page marked "Respond to this article" (see Figure 1.6.). There is no other way to submit a letter to *thebmj.com*. All letters that appear in the print *BMJ* and on *thebmj.com* arrive initially as rapid responses. Rapid Responses are electronic letters to the editor. E-rapid responses, then, enable *thebmj.com* users to debate issues raised in articles published on the journal webpage.

All responses are eligible for publication. A selection of rapid responses is eventually included as edited readers' letters in the weekly print issue of the *BMJ,* although editing proofs of e-rapid responses are not sent to their author. Their first appearance online means that they are published articles. Any competing interests

must be declared and they are posted daily. It is at the editors' discretion whether they publish any particular response [10].

The following figures illustrate the selection of *thebmj.com* open debates that this thesis has focused on; i.e. the clusters of e-genres which instantiate the e-debates on online editorials and research articles.

The online publication of these online genres is likely to be followed by electronic activity in the form of e-rapid responses: E-Rapid Responses to Editorials, e-Rapid Responses to Research Articles. The result is a cluster of e-genres in which the original online editorial or research article is the nucleus. And review is provided in the form of *e-RRs*.

The figure below is the product of a sample analysis of the e-debate elicited by, and after, the online publication of an editorialon *thebmj.com*. This figure offers the map of a cluster of e-genres in a broad time framework.

[10] i.e. They do not publish responses, that they think are not appropriate, are likely to end up in litigation and/or appear to be, obscene, libelous in some other way illegal -for example, inciting racial hatred, contempt of court, breach of intellectual property rights-, incomprehensible, insubstantial, written in capital letters, not written in English, almost entirely a quote from somewhere else, gratuitously rude, blatant advertising, or that give information on patients without their written consent, or are sent by someone who does not provide adequate and accurate personal details including a functioning email address, or from people they suspect have used an alias, or who does not respond to email.

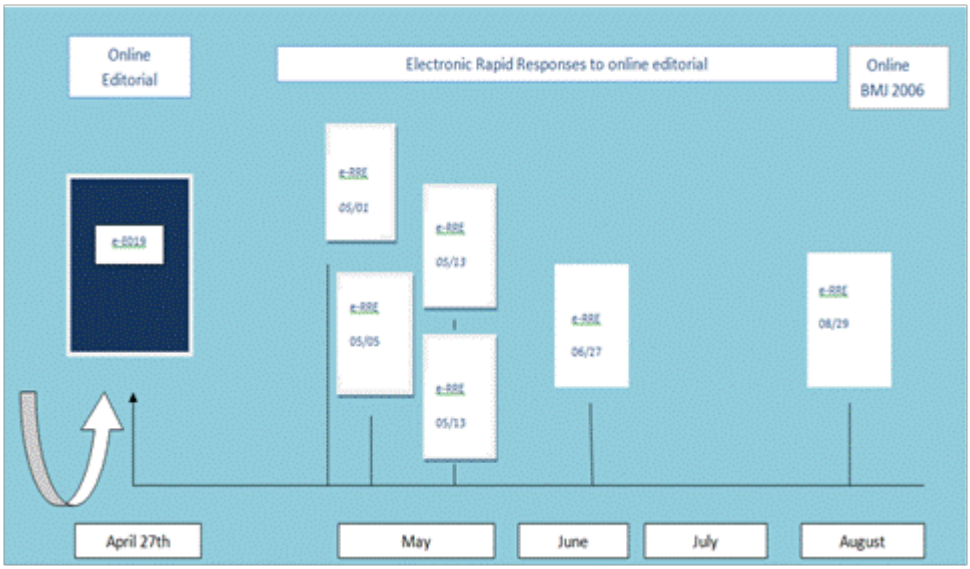


Figure 1.7. Sample rapid response debate elicited by editorial

As we can see from the chart, after the online publication of an editorial on *thebmj.com*, time was given for e-debate, and electronic facilities were provided by the e-journal. This meant time for worldwide *thebmj.com* readers to read the editorial, process it cognitively and emotionally and write a response, to, once posted, be read potentially by a worldwide international readership. This produced a cluster[11] of e-genres with a centre in the editorial published.

The first e-rapid response to the editorial appeared four days later and the second was published four days later as well and seven days after that two other e-rapid responses were posted. After some time, a fifth response appeared online at the end of the following month. That constituted a void period for electronic activity in this e-health debate. And, eventually, a sixth rapid response was published several weeks later; a relapse period can sometimes be considered as a hint that the e-health debate is over. Very rarely is a last rapid response written in reply by

[11] The term 'cluster' of e-genres is introduced here to refer to the e-genres throughout which a topic debated online develops, extends. It may include, for example, an editorial about the topic researched in an article in the same issue of a journal, the article itself, and the *e-RRs* to both.

the author/s of the original editorial as a response to observations made in *e-RRs* during the e-health debate and/or as a way to close the whole process.

E-debates elicited by the publication of online editorials seem to vary in terms of the number of e-rapid responses received; some seemed to have elicited one or no responses at all, whereas some others may have elicited higher figures. In the corpus for this thesis the average number of e-rapid responses per text-type and e-health debate has been estimated for the time-span selected (see section 4.2.1). Several reasons might account for a particular number of responses elicited by a research paper or editorial. Among these we could mention the degree of interest raised by the editorial on *thebmj.com* readership, and the creation of academic conflict created by the editorial, dilemmas that arise and/or the width of the scope of the editorial at an international level, and the quality of the editorial.

E-rapid responses seemed to distribute online publication unevenly throughout the open review period. In this case, a clustering of e-rapid responses during the first months can be observed. A possible interpretation can be that authors were probably contesting the hotter or more evident editorial topics causing dilemma; later, e-rapid responses seemed to tail off and in this case, a possible interpretation could be that adding something new to the debate might be difficult or also that the topic does not raise further interest in a challenging context of new articles coming up online on a weekly basis.

But it is not until after we have looked into the e-health debate that we can truly register the e-rapid response review content, which complements the pre-publication review in the hands of *BMJ* reviewers, nor the purpose of each e-rapid

response in the context of the e-health debate or the particular editorial items considered and/or rhetorical devices employed. This thesis is an attempt to do so.

Figure 1.8. depicts the sample analysis of the e-debate elicited by, and after, the online publication of a research article. This figure offers the map of a cluster of emerging e-genres in a broader time framework on *thebmj.com* in the digital communication process.

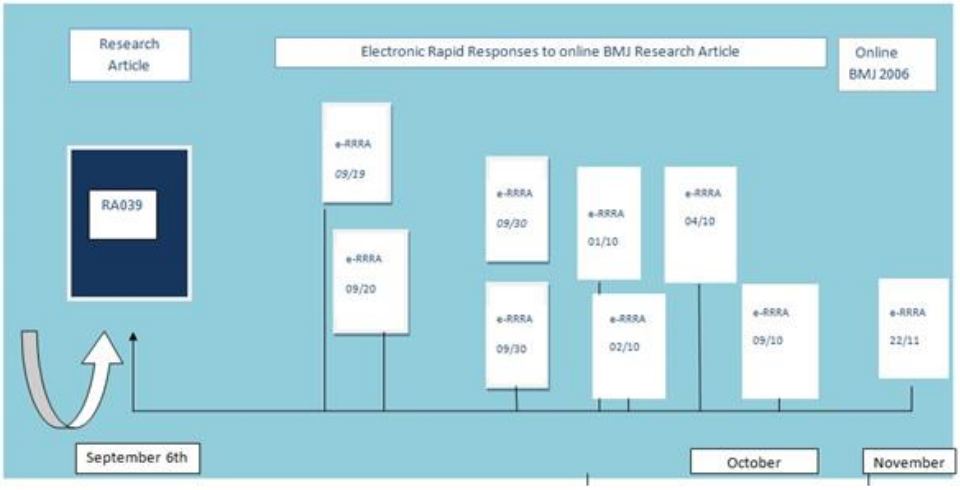


Figure 1.8. Sample rapid response debate elicited by research article

After the online publication of the research article on *thebmj.com*, about acceptability of low molecular weight heparin thromboprophylaxis for inpatients receiving palliative care: qualitative study[12]- time was given for e-debate - and electronic facilities were provided by the e-journal. This meant time for *thebmj.com* worldwide readers to assess the RA, process it cognitively and emotionally and write a response–to be read potentially by a worldwide international readership.

[12] S I R Noble, A Nelson, C Turner & IG Finlay.*BMJ*2006;332: doi:10.1136/*BMJ*.38733.616065.802

The first e-rapid response appeared in the following week and the second was published on the following day; two other e-rapid responses were published ten days later, and these were followed by the scattered online publication of a series of *e-RRs* in October. A last, e-rapid response was published in November, perhaps after a relapse period indicating that the e-health debate was over, and, maybe again, as a response written by the author/s of the original research article in reply to observations made in *e-RRs* during the e-health debate and as a way to close the debate.

On the other hand, E-debates elicited by the publication of online research articles seemed to vary in terms of the number of e-rapid responses received. Some of these articles seemed to have elicited one or no responses at all, whereas some others may have elicited higher figures. In this thesis the average number of e-rapid responses per research article and e-health debate will be estimated for the time-span selected (see section 4.2.1). Several reasons might account for a particular number of responses elicited by a research paper or editorial. Among these one could mention the degree of interest raised by the e-research article in the *BMJ* readership, or the research article (assertions or claims) capacity of creation of academic conflict and/or dilemmas, the contribution to the field made by the research at an international level or the quality of the research.

The *e-RRRAs* also seemed to distribute their online publication unevenly through the open review period. In this case, the clustering of e-rapid responses observed was distributed more evenly. Again, a possible interpretation could be that they were probably contesting the hotter or more evident editorial topics that were

causing discussions or controversy, probably complementing the observations made by other e-rapid responses –as an effect of the *BMJ* editorial policy, which probably made the task of finding something new to add to the debate more complicated for later e-responders. Thus, it is not until after we have explored the e-health debate that we can truly register the e-rapid response medical review content, which complements the pre-publication review in the hands of *BMJ* reviewers, nor the purpose of each e-rapid response in the context of the e-health debate, the particular research article aspects considered by the *e-RRs* and/or the rhetorical devices employed to argue their viewpoints.

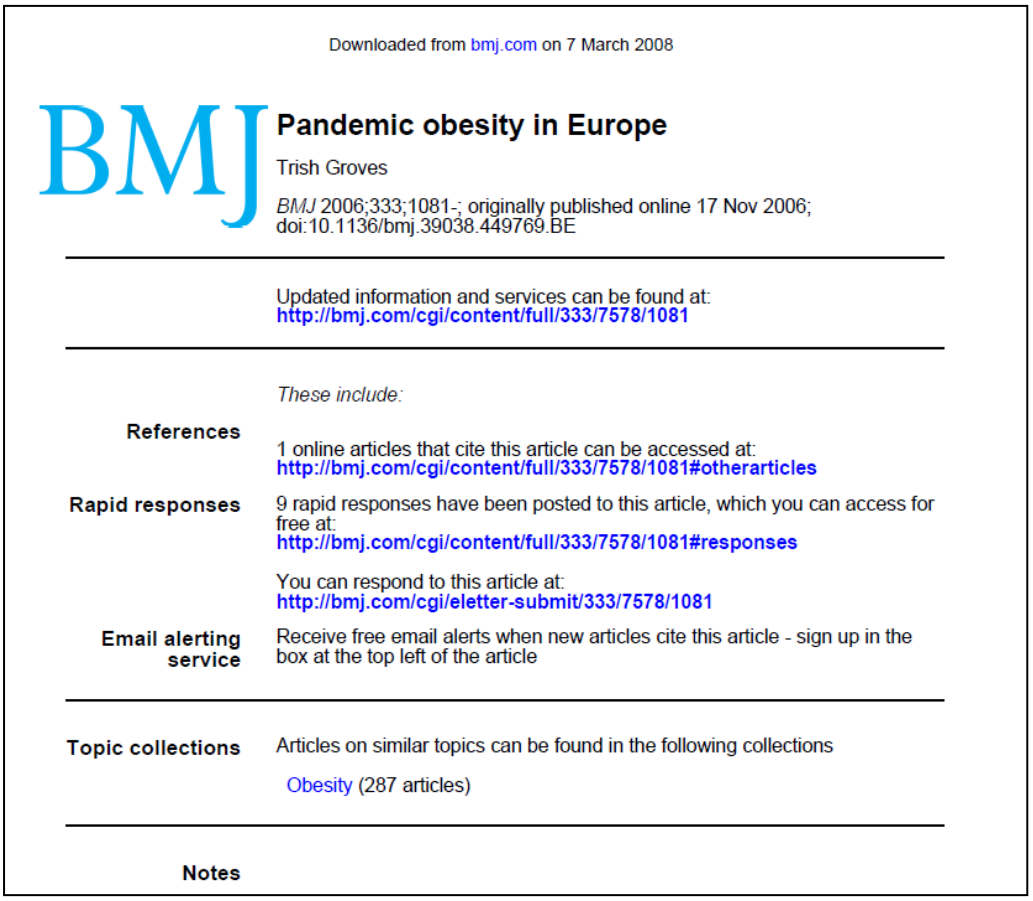
1.4 Electronic Rapid Responses to online genres

Being a medical scientist involves doing myriad tasks; among these the provision of comment and feedback has been well documented. The review of scientific papers clearly entails an assessment task essentially based on a subjective opinion of a reviewer, who may refer to the contents of a particular paper, RA or editorial, and, most importantly, evaluate it according to his/her expertise and knowledge of the topic, field, medical practice and clinical experience. Hence a review can be seen as a personal interpretation based on the reviewer's knowledge of the discipline and influenced by his/her particular view of the topic under discussion. The rise of the Internet and the growth of digital communication have provided new spheres and possibilities for interaction with initiatives such as *thebmj.com* e-rapid responses fora. The *BMJ* webpage offered the possibility of posting an *e-RR* to most of its published documents and it was observed that these seemed to serve a wide range of purposes. In this thesis these purposes have been identified and

selected for study. The categories selected were *e-RREs* and *e-RRRAs*. Particularly, e-*RRRAs* were selected because the post-publication review of RAs has strategic importance as it helps the accommodation of new knowledge into the medical field. *E-RREs* were selected because editorials offer a state-of-the art picture of a particular area, usually from an expert's point of view, and *e-RREs* help validate the cutting-edge knowledge they provide.

E-RRs are crucial and essentially related stages of the post-publication review process of editorials and research articles in the *BMJ* medical community. They seem to be the expression of the readers' cognitive processing of the particular e-genre information.

The navigation through the online *BMJ* provides an insight into a particular network of topic-based e-genres. The following article cover page (Fig. 1.9.), for instance, informs the reader on the electronic network of genres related to an online editorial, the rapid responses posted to the online editorial, the facility to post a rapid response, related articles expression of the extension of the thematic subject area through the e-network, as well as, an email alerting service, which allows the researcher to receive incoming news, recently published papers, on the subject area and to be updated.



Downloaded from bmj.com on 7 March 2008

BMJ

Pandemic obesity in Europe

Trish Groves

BMJ 2006;333;1081-; originally published online 17 Nov 2006;
doi:10.1136/bmj.39038.449769.BE

Updated information and services can be found at:
http://bmj.com/cgi/content/full/333/7578/1081

These include:

References 1 online articles that cite this article can be accessed at:
http://bmj.com/cgi/content/full/333/7578/1081#otherarticles

Rapid responses 9 rapid responses have been posted to this article, which you can access for free at:
http://bmj.com/cgi/content/full/333/7578/1081#responses

You can respond to this article at:
http://bmj.com/cgi/eletter-submit/333/7578/1081

Email alerting service Receive free email alerts when new articles cite this article - sign up in the box at the top left of the article

Topic collections Articles on similar topics can be found in the following collections

Obesity (287 articles)

Notes

Figure 1.9. Sample article cover page

In other words, this sample cover page informs the *BMJ* reader on the e-debate on this e-Editorial, on further citations, on the opportunity to continue the e-debate and on related articles; that is, how the e-debate stretches outwards through the network. On the other hand, it provides a link for the reader to double-click on and dive into the e-debate through *thebmj.com* (inwards), thus accessing another new knowledge microcosmos.

On *thebmj.com* the Rapid response interface has been upgraded; there is now a separate tab at the top of each article and a click on this shows you the latest responses. E-Rapid Responses can also be ranked by popularity and by date. And original authors of *BMJ* articles can respond to a particular e-rapid response using this standard rapid response interface that also facilitates navigation.

The term *rapid* response could lead the reader to an initial conceptualization of an e-Rapid Response to an online paper as an immediate, spontaneous, maybe brief, written expression of a reader's initial cognitive and emotional response elicited by the online publication of a paper. I would like to hypothesize that *BMJ* readers are likely to have gathered a similar idea, as the term was also new for them at the time. In fact, this term, *rapid response*, seems to have acted as a call for the *BMJ* readers' initial response to the reading of a particular online article, with a wide range of realizations. The following figure illustrates a sample e-Rapid Response to an online editorial.

The real reason for not dilating?

The editorial by Liew, Mitchell and Wong [1] discusses a topic important from both the patients and practitioner's point of view. Those of us who see large numbers of ophthalmic patient each day are well aware that making an accurate diagnosis of any retinal condition is virtually impossible without dilating the pupil. As the authors point out, there is ample evidence that pupillary dilation very rarely causes angle closure. Patients who develop angle closure after pharmacological pupil dilation are highly likely to develop the condition anyway and are usually within a setting where more rapid diagnosis and referral can be made.

The more puzzling aspect of this paper is why, when it is evident that all patients who need retinal examination should be dilated, is there a need for an editorial in a widely-read medical journal spelling this out?

For me the answer lies in the psyche of doctors and perhaps other practitioners. We all worry about harming our patients but the harm seems so much worse when it appears to be as a direct result of our action. We mentally balance the outcome of the situation where we could miss an important diagnosis but which will present at some nebulous time in the future (hopefully far enough away for the patient not to feel something was missed) against the apparent immediacy of causing a problem by pupil dilation. The fear we have is that the juxtaposition of action with consequence means the patient is more likely to 'blame' us for the event.

Patients with angle closure glaucoma are invariably treated by ophthalmologists and many of us have seen a number of patients who have been put into angle closure after pharmacological pupil dilation. One of the first things we tell these patients is that they were going to get angle closure glaucoma anyway and the dilation merely brought this

event forward a little. Practitioners need to be aware that putting someone into angle closure is neither negligent nor blameworthy. Conversely missing proliferative diabetic retinopathy or a retinal detachment because of failure to dilate the pupil is.
[*e-RRE*007]

Figure 1.10. A sample e-Rapid Response to an online Editorial

However, after careful reading of the e-Rapid Responses in our corpus, variability was observed in regard to purpose, degrees of spontaneity, article length and quality of argumentation. E-Rapid Responses ranged from being limited to single-topic, short and single-paragraphs to an 8-paragraph 4-topic well-argued 300-word article. Hence, it seemed that after an initial spontaneous response – frequently summarized in the initial paragraph– some *BMJ* readers, seemingly, have developed their arguments carefully and using the rhetorical strategies typically used in their academic community. Figure 1.11. illustrates a sample e-Rapid Response to an online research article.

Didgeridoo: Interesting but unconvincing
I congratulate Puhan and colleagues for their interesting study on a novel treatment for obstructive sleep apnoea (OSA)1. At first glance, the study appears to have good internal validity and is persuasive. However, closer inspection reveals that the evidence is weak for the following reasons.
Puhan selected non-obese participants (average BMI 25.8) with moderate OSA. The outcomes can be divided into subjective and objective measures. The Epworth sleepiness score is a subjective measure and showed the strongest positive effect in the trial. Those who use the Epworth regularly recognise that the score is dependent on many factors. Despite the title "randomised controlled trial", this is not a "placebo controlled" trial. As acknowledged by the authors, the participants in the Didgeridoo arm were highly motivated and it would be surprising indeed if the Epworth did not show a strong placebo effect.
The Apnoea Hypopnea Index (AHI) is an 'objective' outcome measure. However the AHI is an imperfect measure of OSA severity. The halving of AHI from 22.3 to 11.6 at 4 months may seem impressive. However Puhan's paper doesn't give enough details on whether this change is due to change in weight or night to night variability caused by differences in sleep stages, amount of supine versus non-supine sleep, prior sleep deprivation, degree of nasal congestion, prior alcohol use, biological

variability and inter/ intra-scorer variability in marking apnoeas and hypopnoeas2.
The study is very small size and some readers may misinterpret the p value of 0.05 for change in AHI as indicating that there is only 5% probability of the observed results being a chance finding. This is not so. The p value gives a falsely exaggerated impression that the 'data speaks for itself'3.
Using a Bayesian approach4: As there are no previous studies showing that upper airway muscle training would improve OSA, it is reasonable to assume a 90% pre-trial probability that the null hypothesis is correct (i.e. that Didgeridoo playing is no better than placebo). A p value of 0.05 approximates a Bayes Factor of 0.15. This gives a post-trial probability that the null hypothesis being correct as 57.4%. i.e. it is still more likely that the null hypothesis is correct. This highlights the importance of using the totality of evidence from other trials when interpreting p values in single trials5.
The burden of OSA in the community is large and many patients tolerate continuous positive airway pressure poorly. New approaches to treatment are necessary. However, the data in this trial is unconvincing that the Didgeridoo will emerge as a useful therapy, especially in those with obesity and more severe disease.
[*e-RRRA*018]

Figure 1.11. A sample e-Rapid Response to an online Research Article

This seems to imply that *BMJ*responders are to be well aware of the fact that, when publishing online, a world-wide audience and the online international community of *BMJ* members can read them, and that they can also react to the ideas they communicate online.

BMJ papers are commonly read. But, of those who read the e-paper, only some read the e-Rapid Responses posted. And, of those who read the whole online debate, only some will eventually decide to post a rapid response and engage in the e-debate. There might be several reasons for this fact; firstly, some readers might prefer to keep their opinions to themselves and not to go out onto the virtual arena, that is, to have their opinions and voices published at an international level. Secondly, editorial writers tend to be experts in their field, acknowledged members of the discourse community, so, posting a response is a social step some

professionals & laymen, especially patients, may not dare to take. These fears seem not to have been shared by other members of the journal readership, who have posted several e-rapid responses with varying degrees of contribution quality.

From the observation of our corpus of e-Rapid Responses, the cognitive response elicited in the *BMJ* online reader might range from the reader's emotional responses, judgments on the paper and recalling related research or relevant experiences among others. Letter-like sections have also been observed in some e-Rapid Responses.It is their rhetorical organization which is to our interest, they are approached in chapters 5 & 6.

BMJ Electronic rapid responses seem to be e-subgenres that are contributed within a particular context which imposes constraints on their realization and affects the e-responders choice of scientific medical content and rhetorical structure. Among the elements which may be relevant in the context, or situation, for the issuing of an *e-RR* by a *BMJ* responder, one may include the following:

- A worldwide readership, people who are capable of writing an opinion on the reviewed article, the *e-RR*, and their authors.
- The medical professionals all around the world whose work in hospitals and other medical centers can be affected by their words; and also those who are members of the *BMJ* medical discourse community.
- Research and knowledge experts in the area or field of interest, research groups, who can make observations on knowledge claims and methodological flaws, or comment on their process of reasoning.

- *BMJ* editorial board – who are gatekeepers and can gather an image of the e-responder– which can affect subsequent acceptance of paper submissions.
- The fact of being engaged in an online post-publication debate –which involves a certain amount of responsibility as a complementary evaluator, as an agent contributing to the validation of knowledge claims, the observation of methodological flaws and the prediction of editorial assertion effects among others.
- The time and space constraints imposed by the *BMJ*.

E-RRs appear to be an essential part of the open post-publication process in some e-journals and seem to be produced as the culmination of the online publication process constituting a strategic complementary stage of the review process. However, there has been, to date, no study on this worldwide readership-produced e-subgenre. As such, a study of the *e-RRs* that contribute to the online *BMJ* can inform us on an electronic subgenre that fills a place somewhere between the publication of a paper, on the one hand, and the acknowledgment of its knowledge claims, on the other. A genre analysis of the electronic subgenre of *e-RRs* can shed light on the nature of this e-subgenre in terms of its discourse structure, its basic language parameters, and its place among different realizations of academic writing. The findings from such a study can be used to gain a wider view of genres in the field of medicine.

1.5 Objectives of the thesis

The objectives of this thesis are to study the language of electronic rapid responseson *thebmj.com* using the insights provided by Applied Linguistics. I

intend to observe similarities and differences across *thebmj.com* subcorpora and to describe them within the framework provided by Quantitative Applied Linguistics and Genre Analysis. Firstly, the aims of this thesis are to estimate the following language statistics of the subcorpora of *BMJ* e-rapid responses:

(i) the electronic activity elicited by *BMJ* papers in terms of rapid responses

(ii) number of rapid responses per e-genre

(iii) number of words per e-rapid response type

(iv) sentence length, and rapid response length

(v) the most common words per rapid response type

Secondly, this research aims to identify the constituent elements of the rhetorical structure of e-Rapid Responses to editorials and research articles. In other words, my aim is to offer a corpus based description of *thebmj.com e-RRs* from a genre perspective. This implies the usage of quantitative applied linguistics for the characterization of the *BMJ* corpus in terms of length and most frequently used words in the corpus. Then, the genre analysis approach is employed to analize two corpora of *BMJ e-RRs* in terms of moves and strategies.

1.6 Research Questions

Medical professionals have interacted in many ways for centuries for the benefit of human health. The presence of the Internet has created new opportunities for interaction, and the myriad events that constitute the environment in which their communication takes place have expanded. Hence, our purpose in this dissertation is to contribute to a distinctive characterization of *thebmj.com* rapid responses as instances of online medical language, electronic English for Medicine

(Posteguillo, 2006). This thesis looks into a selection of electronic rapid responses to research articles and editorials in the theoretical framework provided by the perspectives of Applied Linguistics and Genre Analysis.

The specific research questions were:

- What is the average number of *e-RRs* per editorial and research article? (Chapter four)
- What is the average number of words per *e-RR* type? (Chapter 4)
- What is the average sentence length per *e-RR* type? (Chapter 4)
- What is the average sentence number per *e-RR* type? (Chapter 4)
- What are the most frequent words used in *e-RREs*? (Chapter 4)
- What are the most frequent words used in *e-RRRAs*? (Chapter 4)
- What is the *e-RRE* structure in terms of moves and strategies? (Chapter 5)
- What is the *e-RRRA* structure in terms of moves and strategies? (Chapter 6)
- Is there an association between *e-RR* type and the range of purposes identified per *e-RR* type in the PPORDs? Are the differences found in the identified range of purposes per *e-RR* type significant? (Chapter 7)
- Is there an association between *e-RR* type and the identified structure of *e-RRs* in terms of moves? Are the differences found in the identified structures of *e-RREs* and *e-RRRAs* significant in terms of moves? (Chapter 7)
- Is there an association between *e-RR* type and the identified structure of *e-RRs* in terms of strategies? Are the differences found in the identified structures of *e-RREs* and *e-RRRAs* significant in terms of strategies? (Chapter 7)

1.7 Basic Hypotheses

The basic hypotheses in this study stem from those within the tradition of linguistic research into Academic discourse:

- The nature of a communicative situation may influence the language of a genre.
- Different communicative situations can entail differences in the language features of genres and language choice.
- Similarities in communicative situations can entail similarities in language features and language choice of genres.
- Different discourse communities may use language with different characteristics. That is to say, the language used by a particular discourse community may reveal discipline-based characteristics.

  And, also,
- The refereeing function of an editorial board may have an effect on the eventually published papers – and, therefore, in the corpus of this study.
- The e-health revolution –as technological change- may allow for language varieties –which may depend on the communicative situation in which they appear– which may be studied by Applied Linguistics.
- The nature and content of a paper to which review is provided may affect the nature and content of the reviewing paper, i.e. e-rapid response in this study.

Also, this study aims at testing whether the rhetorical organizations of *e-RREs* and *e-RRRAs* are similar (h_0 hypothesis) or different statistically (h_1 hypothesis). And,

h_0 there is no association between *e-RR* type and purpose. h_1 there is association between *e-RR* type and purpose.

h_0 there is no association between *e-RR* type and structure in terms of moves. h_1 there is association between *e-RR* type and structure in terms of moves.

h_0 there is no association between *e-RR* type and structure in terms of strategies. h_1 there is association between *e-RR* type and structure in terms of strategies.

1.8 Design of the Study

This research is a quantitative and qualitative study of emerging online subgenres, e-Rapid Response types, in the framework provided by Corpus linguistics and genre analysis.

- First, the electronic activity per online genre type has been estimated for the period studied in terms of the average number of *e-RRs* per e-genre type.
- Second, the average number of words e-genre type for the period studied has been calculated.
- Third, the average number of sentences and the average sentence length of each e-rapid response type have been calculated.
- Fourth, the rhetorical moves and strategies of the subcorpora from *thebmj.com* e-rapid responses to online editorials have been identified.
- Fifth, the rhetorical moves and strategies of the subcorpus from *thebmj.com* e-rapid responses to online research articles have been identified.

- Sixth, χ^2 tests have been used to discern whether the differences found in terms of purpose, move frecuency and strategy frecuency are significant.
- Seventh, similarities and differences with previous genre studies, and distinct features of these e-subgenres have been explained in terms of differences and similarities of communicative situation, nature of communicative situation, and/or purpose(s).
- Eighth, conclusions have been drawn.

1.9 Outline of the thesis

This thesis is made up of eight chapters.

Chapter 1 positions this piece of research in the framework of recent developments in the e-Health revolution, of initiatives of open post publication review debates in electronic journals. A description of the open review movement and the particular case of *thebmj.com* is offered, together with a reference to electronic rapid responses in general, and more specifically to *thebmj.com*e-rapid responses to editorials, research articles.

Chapter 2 offers a summary of the traditions which contribute to the relativization framework of this study in linguistics; academic printed English, electronic discourse and electronic English for medicine. It provides background information with further comparison purposes and highlights the gaps this study aims to fill.

Chapter 3 describes the methodology used in this study. It focuses on the criteria for the selection of the corpus, the collection of the corpus and sampling decisions.

The quantitative results of this study appear in Chapter 4, which provides a linguistic description of *thebmj.com* rapid responses, in terms of response length, sentence length and electronic activity elicited by online research articles and editorials.

The qualitative results of this study are shown in Chapters 5 and 6.

Chapter 5 looks into the rhetorical structure of electronic rapid responses to editorials in the framework provided by genre analysis.

Chapter 6 explores the rhetorical structure of electronic rapid responses to research articles in the framework provided by genre analysis.

Chapter 7 offers the calculation of the χ^2 tests to discern whether the differences found in the corpora of rapid responses to editorials and research articles are significant.

Lastly, the concluding chapter 8, draws these findings together and focuses on the contributions made by this thesis in genre analysis in medicine and internet English, highlighting the importance of future research.

CHAPTER 2.

REVIEW OF LITERATURE

2.1 Introduction

In Chapter 1, the main contextual factors framing *thebmj.com e-RRs* as medical subgenres in medical Computer Mediated Communication *(CMC)* have been introduced with a focus on *thebmj.com*, its online publication review debates and *e-RRs* as an object of study. It has been emphasized that this is a quantitative and qualitative study of a corpus of electronic rapid responses on the *thebmj.com* and a Genre Analysis study which attempts a characterization of *e-RRs* and a comparative study of *e-RREs* (rapid responses to editorials) and *e-RRRAs* (rapid responses to research articles).

This chapter outlines the research that may bear some relationship with the *e-RRs* in our corpora. In this section, a review of related literature, reference is made to the three strands of research which frame our study, those centered in CMC, genre analysis including social factors and medical discourse.

Electronic English for Medicine (Posteguillo, 2006) may be viewed as be a group of recent language varieties in the space where medicine, the Internet and English overlap resulting in a wide variety of communicative situations and communicative events in the medical world.

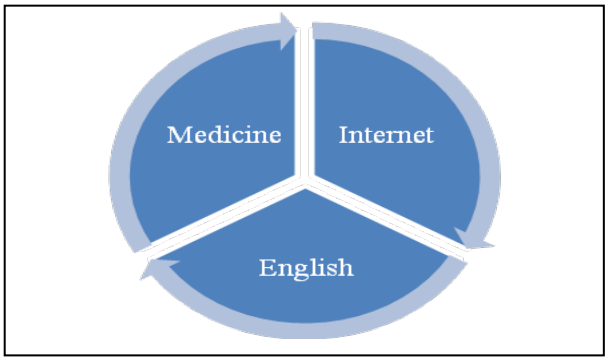


Figure 2.1.The framework for electronic English for medicine

Some of Web 2.0 journals in medicine include interactive features that allow for purely online English genres. This is the case of journals like the *British Medical Journal* (*BMJ*), *the Lancet*, *New England Journal of Medicine* (*NEJM*) and the *Journal of the American Medical Association* (*JAMA*) among others. These journals have printed and online versions, and e-genres in which use is made of electronic English for medicine. Some studies report on the language employed in these journals (for a comprehensive account see section 2.3.7 genre analysis in medicine).

As our purpose in this thesis is to describe *thebmj.com e-RRs* as an online new subgenre in medicine, the *e-RRs* in the corpus were screened to identify those genres in CMC, EAP and ESP which theymight bear some schematic/structural resemblance with. The outcome was a selection of printed, spoken and digital genres which are referred to in this literature review section. I assume that this selection is not comprehensive, as further comparisons with other subgenres and/or genres could also be made, but we consider this selected set is representative enough to draw powerful conclusions and help the constitution of a suitable scope for this thesis.

This is the reason why the following references are provided, references that we think are worthy of note. And this is also the reason why the literature review offered in the following paragraphs includes first and foremost those aspects that are directly relevant to the present study.

2.2 Computer Mediated Communication

E-RR writers from *thebmj.com* make use of the Internet to communicate with their peers on the *BMJ* webpage. Their online communication takes place within a much broader international context of communicative activities in the form of personal encounters, international conferences, seminars and publications. This is the reason why we think a definition of computer mediated communication is necessary in this context. It refers to the diversity of tools available for text-based communication between individuals using a computer and an Internet connection. The term comprises online discourse environments, either asynchronous or synchronous (Fernandez Sánchez, 2006:34).

In the 1980s the term Computer Mediated Communication (CMC) emerged allowing for a range of platforms used for communicating online, including email, chats, instant messaging or listservs.

> Computer mediated communication (CMC) refers to the diversity of tools available for text-based communication between individuals using a computer and an Internet connection. The term comprises online discourse environments, [...] (Fernandez Sánchez, 2006:34)

But new developments in the sector of mobile devices (such as mobile phones and the Blackberry) did not seem to fit in the picture. Many researchers, then, moved on to employ the wider term information communication technologies (ICTs), referring rather to the technological artifacts (mobile phones, personal digital assistants, computers...) than to the information they contained. Other researchers, overcoming these difficulties, have opted for the term “electronically-mediated communication” (EMC) (Baron, 2008: 12).

Following Baron (2008:14) electronic communication can be divided along two dimensions: synchronicity and language scope. Synchronicity refers to the question "Does communication happen in real time (synchronous) or do senders ship off their messages for recipients to open at their convenience (asynchronous)?". The second dimension refers to the question "Is the communication intended for a single person (one-to-one) or for a larger audience (one-to-many)?".

E-RR writers from *thebmj.com* make use of the internet to communicate with their peers on the journal webpage; that is to say *e-RRs* are instances of Computer Mediated Communication (CMC or EMC) in the field of medicine, and constitute a medical CMC (or EMC) subgenre, as *e-RRs* first appear online on the website, and this page is accessible from PCs, smartphones and tablets.

On the other hand, *e-RRs* share with emails and discussion boards the fact that they have an asynchronous nature; that is to say, *e-RR* writers post their responses for the readers to open at their convenience, and recipients read the responses non-simultaneously. Moreover, *e-RR* writers post their responses for a large audience to read, i.e: they are instances of one-to-many communication.

The following scheme illustrates how *e-RRs* fit into the electronic communication picture (adapted from Baron, 2008: 14):

	Asynchronous	**Synchronous**
One-to-one	Email, texting on mobile phones	Instant messaging
One-to-many	Newsgroups, listservs, blogs, MySpace, Facebook, You Tube, *electronic rapid responses*	Computer conferencing, MUDs, MOOs, chat,

Figure 2.2. Electronic rapid responses in CMC (EMC) (Adapted from Baron: 2008:14)

The initial discussions of CMC debated whether online communication was a new form of language – or its degeneration. Debates in the late 1980s and early 1990s focused on language traits such as abbreviations, acronyms, emoticons, spelling, grammar, punctuation, and also flaming. CMC trascended the academic world and included everyday users of email, chats, listservs and instant messaging. In the 1990s, there was a shift to answer the question whether CMC resembled speech or writing. The answer at the time was that, although a written form of communication, it was essentially a mixed modality. It resembled speech as it was "largely unedited; it contained many first- and second-person pronouns; it commonly used present tense and contractions; it was generally informal. [...] and it could be rude or even obscene" (Baron 1998); but it also constituted a case of writing in that "the medium was durable, and participants commonly used a wide range of vocabulary choices and complex syntax" (Baron 1998)[13]. When focusing

[13] Baron's (1984:120; 2000:22) approach rejects a dichotomous view of "speech vs. writing, for her, spoken language sometimes has some features of written language and vice-versa." She offered the notion of a continuum between different types of communication, identifying a serial relationship between: face-to-face conversation – videophones/teleconferencing-telephone – computers/word processing – writing. We would place *e-RRs* in the overlapping area of the two last ones.

on the informality of messages, the answer was that CMC resembled "speech". In spite of this, there were some exceptions, and researchers started to accummulate evidence in support of the ways CMC shared features with formal and informal writing, and with formal or informal speech. More recent voices argue for the idea that electronically mediated communication has a small actual linguistic impact, and also for the idea that "these new forms of language are having profound impacts upon both the linguistic and social dimensions of human interaction" (Baron, 2008:29).

In the early 2000s Crystal did research into different types of CMC, including email, chat and virtual worlds; comparing them to his own analysis of written versus spoken language. He coined the term "Netspeak" to refer to the language used in CMC as a whole and concluded that "Netspeak has far more properties linking it to writing than to speech (...) Netspeak is better seen as written language which has been pulled some way in the direction of speech than as spoken language which has been written down" (Crystal, 2001, cited in Baron 2008).

The term CMC has been conceptualized as distinct from that of 'electronic discourse' (for a more detailed account of these terms and that of Crystal's "Netspeak" see section 2.2.1 below).

2.2.1 Electronic discourse

Generally speaking, 'electronic discourse' (Herring, 1996; Collot & Belmore, 1996 cited in Fernández Sanchez 2006) can be conceptualized as language that is used to communicate in cyberspace. The usage of the term 'electronic discourse' implies that it focuses on how individuals use language to exchange ideas rather

than on the medium or channel by which they transfer and deliver their messages (Davies & Brewer 1997:2). It has been considered a hybrid, as it combines features of the spoken and written modes. Moreover attention has been paid to the language used over the medium of the internet; as opposed to CMC, which has paid more attention to the medium, and to the features electronic discourse seems to borrow from speaking and writing; what these authors (ibid) call "writing that reads as conversation".

In our study I make use of the concept 'electronic discourse' as we observe the language that is used to communicate in cyberspace by the medical *thebmj.com* community and I focus on how medical experts use language to exchange ideas online, and as an addition to their off-line encounters, rather than on the medium. My purpose is to study their rhetorical organization and, hence, shed light on this issue.

A third term used to refer to the language of the Internet is that of 'Netspeak'. For Crystal (2001:238) netspeak is a phenomenon, a linguistic singularity, a new medium. This author stresses the analogy of speech and online communications when he observes the features of synchronous CMC genres such as Internet Relay Chat or chatrooms, and considers those involved interact in real time as if they were having a conversation. For Crystal web documents cannot be compared to printed documents because of their transience and evolving nature. This is an opinion I only partially share, because I think this comparison may help and be fruitful for further insights into the nature of *e-RRs*, as certain elements may have

the same purposes, and some elements in *e-RR* structure may hold true in both *e-RRs* and some printed and spoken genres.

2.2.2 Web genres

The expansion of the internet provided the grounds for the emergence of new genres; for some of them there was a printed referent, that is, they constituted replicated digital versions, although for some others there was no printed referent and, hence, they constituted a novel category. The identification and classification of World Wide Web genres, (also 'digital genres' or 'cybergenres'), have raised great interests among researchers. Crowston & Williams (1997) identified the genres embedded in random webpages according to their form and purpose. Although within an organizational context these authors seemed to be well aware of the capabilities this new medium offered:

> The web provides a particularly interesting setting in which to study the use and development of genres and genre. First, the capabilities of the new media seem likely to result in the development of new genres of communication. Furthermore, the rapid development of this new media suggests a high level of experimentation with potential genres (Crowston & Williams 1997:32).

In their view, many organizations see the Web as a cheap means of publishing information online and, hence, simply move existing documents to the web; however, "few organizations are experimenting with its capabilities to communicate and interact in novel ways, creating new 'genres' of communication" (Crowston & Williams, 1997:30), and exploit the linking and interactivity the web provided. Crowston & Williams (1997) distinguish between 'reproduced' genres and 'emergent' genres. The former are copies or

reproductions of genres from other media, whereas the latter have developed in the digital medium, and thus they lack referents in the other media.

In this respect the *BMJ* is the journal of an organization, the British Medical Association, I estimate that this online journal makes up for the aforementioned shortcoming as it takes advantage of the linking and interactive capabilities the new medium the internet offers, and has experimented with new subgenres such as rapid responses. On the other hand, in its different stages, rapid responses can be considered as a form of hybridization of an emergent genre, as, at their onset, they developed in the digital medium, with the purpose of capturing the first reactions to the reading of an e-paper and also because most of them lacked a printed referent -and only some were printed as letters.

For Shepherd & Watters (1998) the introduction of the web has triggered the emergence of new genres, and hence, there is a need for the distinction between traditional genres and 'cybergenres'. Furthermore, a distinction has to be drawn between two main classes of cybergenres, extant and novel.

The class of *extant* subgenres consists of those based on genre existing in other media, such as paper or video, that have migrated to this new medium. The class of *novel* subgenres consists of those genres that have developed in this new medium and have no real counterpart in another medium. (Shepherd & Watters, 1998:98). *BMJ e-RRs*, stemming from printed letters to the editor, would comprise both classes of cybergenres, those *e-RRs* which first appear online and are not printed, and e-letters to the editor, which have a printed counterpart.

In addition, Shepherd & Watters (1998:98) state that extant cybergenres can be 'replicated' –faithful reproductions of the original genres– or 'variant' – which entails they have changed through variations on the original genres so much that their origins are difficult to track, and also that they take advantage of the affordances of the new medium[14].

BMJ rapid responses take advantage of the interactive capabilities of the new medium, especially as far as referencing and linking is concerned, but their origins can be tracked back to the existence of printed letters, although the former seem to have a different purpose.

As far as the *BMJ* webpage as a genre is concerned, it is hosted by the BMA, and its effectiveness is likely to be the result of the unique properties the medium of the Internet provides:

- The website is a pull medium, which means that the user/receiver is in an active position of information seeking
- The website enables interaction as the possibility of responding is very easy, an integrated tool
- The website is a dynamic and fluctuating medium, which means that it may be updated
- The website is an immediate and global medium available at any time to any Internet user all over the world. (Adapted from Nielsen, 2002:9)

[14] Shepherd & Watters (1999) found that all digital documents shared a common attribute 'functionality'. This term refers to "capabilities availbale in the new medium" (the internet), and functionality is in constant evolution.

Nielsen (2002) emphasizes that the webpage has the main purpose of serving as a repository of information, and stresses the idea that, in order to study the rhetorical structure of web documents, both the perspective of the user and the reader have to be taken into account.

2.2.3. State of the art in Electronic Responses in Linguistics

The term "electronic response" (Google Scholar hits number 121000)[15] has raised considerable interest within several disciplines such as physics, electronic engineering and pedagogy (in student response systems) among others. Within linguistics, the term "response" has had different notions, and research has evolved from focusing on *responses in oral conversations*– in the Conversation Analysis framework- to *email responses to received emails*– in Pragmatics. Within this tradition several text types have been identified; email responses, readers' contributions, online newspaper comments, postings to videos, among others.

In the internet context, the term "response" has initially been associated with that of email response (Skovholt, K & Svennevig, J, 2013); as a written medium which has been characterized as interactive (i), with speed of ease and delivery (ii), having the possibility of involving extended interchanges (iii), sequential and organized in turns (iv), having an asynchronous nature (v), and as example of one-to-one and/or one-to-many communication (vi).

This has made email response comparable to oral conversation (Arminen, 2005). And CMC scholars have characterized emails in relation to oral conversation,

[15] Accessed September 2015

supporting the notion of textual CMC as a conversation (Herring, 2010 - in Skovholt & Svennevig 2013). The analysis of conversational turns, the interpretation of silence and/or non-responses and the meaning of the temporal aspect have been subjected to analysis in CA, and, consequently, and, in comparison, in email interaction. Researchers into email responsiveness have looked into features such as silence and response latencies (i), turn-taking or conversational turns (ii) and response norms (iii).

Response Latencies[16].Online response patterns have been studied in different CMC contexts. Jones, Ravid & Rafaeli (2004) studied them in discussion groups on Usenet; Rafaeli, Raban & Ravid (2005) focused on the 'Google Answers' Website. And, in ESP, they have have raised interest within business English – for example, between customers and organizations (Mattila & Mount, 2003; Strauss & Hill, 2001; Skovholt & Svennevig (2013). Most of these studies revealed that online responses seem to emerge within a short period of time. Specifically, Kalman et al (2006) established empirically that 80% of responses were sent within the average response latency of the group, and that the latter varied according to its context (a university forum, 'Google Answers' or Enron emails). Skovholt & Svennevig (2013) found an average response latency of 28.01 hours in the context of workplace emails, and differences between requesting –for information and for action– and non-requesting messages, and questions.

Turn taking rules and interactional coherence have been studied in text-based conversation in the context of CMC and CA (Herring 1999; Garcia & Jacobs

[16] Response latency is the elapsed time between the release of an email and the (required) response.

1999; Panyametheekul &Herring 2003; Rintel, Pittam & Mulholland 2003; Markman 2013) frequently through the comparison of chat interaction and traditional conversation. Chats have revealed themselves to be characterized by several features, among which we can include disrupted turn adjacency (Herring, 1999), preference of explicit address of next speaker in their selection (Panyametheekul & Herring 2003), and by the organization of actions by means of a particular threading strategy (Markman, 2013).

The **norms** of responding in computer-mediated interaction have been described and interpreted in several studies. Severinsson Eklund (1986) investigated the COM message system –which facilitated participation in "real time dialogues" and the exchange of electronic letters. In her distinction between face-to-face (real time) and computer-mediated (electronic) dialogue structures, she observed that the latter is characterized by a two-part structure, characterizing a final and evaluating third move. Laursen (2005) & Baym (1996), among others, focus on the significance and interpretation of absent and/or delayed replies to messages. Laursen's (2005) study focused on SMS interaction, and revealed that both requesting and non-requesting messages received a response. Particularly interesting for our study are her observations that unanswered messages were interpreted as rudeness, deviant cases, in the context of SMS adolescent interaction, context in which the interactional norm is to maintain interpersonal relationships. Baym's (1996) study identified the structural features of agreeing and disagreeing messages in a Usenet newsgroup (r.a.t.s.; rec.arts.tv.soaps), interpreting delays in the newsgroup interaction as responses to an asynchronous written medium, rather than a dispreferred response, and implicitly suggesting

differences between electronic interaction and oral interactions in regard to participants' expectations and norms.

Within organizational contexts, the norms of responding to emails have been the focus of various interesting studies (Murray 1991, Condon &Cech 1996; Tyler and Tang 2003; Kankaanranta 2005 a,b; Skovholt & Svennevig 2013). Kankaanranta interprets absent responses to a particular genre type such as the noticeboard genre; the postman genre and and the dialogue genres. Condon & Cech (1996) interpret missing responses in oral and computer-mediated contexts as linked to a prototypical decision routine –based on participants' shared understanding which allows them to reach consensus without the provision of a response, suggesting that the absence of response can signal agreement. Tyler & Tang (2003), who looked into participants' perceptions of their own email responses and their expectations of their co-participants responses to them, observed that email rhythms were highly based on relationships, and favouring quick responses with a short message indicated that they intended to provide a full reply in brief. In this sense, Rintel et al (2003) observed that participants in Internet Relay Chat (IRC) facing non-responses favoured reconnection and re-greet as a response to the assumption of an interpersonal problem. Skovholt & Svennevig (2013), focusing on workplace emails and the implicit norms which account for email response, found that responses are conditionally relevant after requests and questions– with the exception of invitations for comments and/or corrections, to which there is no need– and that, in email interaction, a missing response can be due to several reasons including technical problems, such as, receiver's having time & space email restrictions, difficulties understanding

message content and relational problems; as well as, sender's importance. These authors consider that, in a workplace setting organization needs and the participants' institutional roles are more relevant in the participants' interaction. Particularly interesting to this context is Locher's study (2013) on "Lucy answers" advice-giving response letters by health professionals, in which peer advice is analysed paying attention to norms, among other factors.

Some other digital genre interfaces which offer interactive possibilities, have also been the object of research:

From a sociolinguistics perspective Androutsopoulos (2006) suggested that readers' electronic contributions reflect the practices of an online community. Neurauter (2009) investigated online newspaper comments, centred on the power relationship likely to be established between journalists and responding readers and on how traditional roles and relations are challenged.

Bou (2010), for example, studied readers' electronic responses of a newspaper website (guardian.co.uk), more specifically the online responses to opinion news about domestic violence and health from its "Comment is free but facts are sacred" section, identifying the most common social practices negotiated within its online community. Lorenzo-Dus, Garcés-Conejos & Bou-Franch (2011) investigated impoliteness the case of postings in response to the Obama Reggaeton YouTube video revealing overlapping between 'lay' and 'analyst' assessments. The structure of the 'response' article in printed Applied Linguistics has been identified by Moreno Pichastor (2009) in her dissertation *Academic Evaluation within the Applied Linguistics 'Response' Article: An analysis of*

writer-mediated praise and criticism as rhetorical strategies. But, to the best of my knowledge, no study has addressed electronic responses to online editorials and articles in medicine.

2.3 Genre Analysis

In a broad sense, genre analysis is an approach to studying discourse that has as a basis the description and classification of different text-types or genres used by a particular discourse community. According to Thompson (2001:34) it has the following goals:

- To identify the regularities of form, of rhetorical organization and of linguistic features within the genre
- To relate these regularities of form, or rhetorical organization and of linguistic features to communicative purpose
- To establish which features are obligatory and which are optional within given discourse communities
- To understand why and how the genre has developed into its present form, and what functions the genre plays within the community

In my view, these goals can be applied to the study of electronic medical subgenres such as *e-RRs*; this is the reason why they have been reformulated and adapted to undertake the present study, and can be described as follows:

- To identify the regularities of form and of rhetorical organization of *e-RRs*
- To relate the *e-RRs* regularities of form, and rhetorical organization to their communicative purpose

- To establish which features are obligatory and which are optional in *e-RREs* and *e-RRRAs* within the *BMJ* discourse community
- To understand how the genre has evolved into its present for by investigating its possible sources inside and outside the digital medium, and see what its uses are within the *BMJ* community

As mentioned above, these objectives can be applied to the study of electronic medical subgenres such as *e-RRs* from *thebmj.com.*

2.3.1 Traditions

Three major schools have been identified within Applied Linguistics (Thompson 2001); namely, the ESP school, the North American school of New Rhetoric and the Australian school. According to Thompson, the first one views genre as text types defined by communicative purpose and formal properties in social contexts; the second one pays attention to purposes and actions and makes use of ethnographic methods to look into the situational context; and the third one focuses on linguistic features of texts, applying Hallidayan analytical frameworks to texts.

As I am interested in studying a corpus of *e-RRs* in detail, focusing on basic descriptive statistical parameters and identifying its constituents, elements, i.e. the analysis of their rhetorical structure, it has seemed most suitable to look into the contributions made to the ESP school and the North American School by some relevant scholars.

The ESP school includes English for Academic Purposes and English for Medical Purposes –among others– as areas of language study. A major line of

research in the ESP school studies texts to reveal their rhetorical structure[17] and screen their distinctive features, communicative purposes within social contexts. In particular, they have focused on the research article and its sections; i.e. the abstract, the introduction, the methods, the result and the discussion. Further genres studied by the ESP school are the university lecture, the dissertation, the editorial letter among others. A second line of research has investigated specific sentence-level lexicogrammatical features; e.g. addressee features, self-mention, personal pronouns, the expression of stance and collocational frameworks among others. Their main objectives have been, therefore, to do research into the academic genres employed by academic and professional discourse communities[18]. Swales (1990: 58) conceptualized genre[19] as follows:

> A genre comprises a class of communicative events, the members of which share some set of communicative purposes. These purposes are recognized by the expert members of the discourse community, and thereby constitute the rationale for the genre. The rationale shapes the schematic structure of the discourse and influences and constrains choice of content and style...Exemplars of a genre exhibit various patterns of similarity in terms of structure, style, content and intended audience.

The online publication of *e-RRs* may constitute a class of communicative events in the medical community, that of an online review of an editorial or a research

[17] Method regarded as structural move analysis.

[18] Among journals publishing research in *ESP* we can include *English for Specific Purposes, Text and Journal for Academic Purposes.* According to Biber (2007) they have a readership constituted by ESP researchers and often display pieces of research. which make use of electronic corpora, data-analysis software and corpus linguistics and discourse analysis methods.

[19] Swales considers that it is the experts of a discourse community those who are capable of recognizing the purposes of a genre, whereas novice members in a discourse community are less able to do so

article. The members of the medical community share the purposes of improving patients' health and communicating for the sake of sound scientific bases for their medical practice to optimize it. In addition, the online medical community can recognize the value of the publication of *e-RRs* and *thebmj.com* interface which fosters participation and helps optimizing the review and relativization of new research (RAs) and state-of-the art knowledge (editorials). Hence, the rationale behind the subgenre of *e-RRs* may shape their schematic structure and *e-RRs* can reveal patterns of similarity in terms of structure, style, content, and intended audience. These are the objects of the present study, i.e. the present thesis is an attempt to address *e-RRs* inferring patterns of similarity and accounting for them making reference to the rationale of the subgenre and the intended audience (for a more comprehensive overview of concepts of genre see section 2.3.2 below). The ESP genre school has been subjected to criticism due to the fact that it offers a limited description of social contexts and also because it seems to neglect issues like power use.

The North American Genre Theory[20] developed from professional writing, rhetoric, speech act theory and composition studies (Bawarshi & Reiff 2010)[21]. New Rhetoric, in particular, pays attention to the situational context of genres, focusing on how social reality and shared experience are constructed and on how people identify with particular social groups, rather than in persuasive strategies. The North American Genre Theory divides texts into kinds or types of discourse

[20] Also regarded as Rhetorical genre studies.

[21] Journals having published research within this approach include Written Communication, Quarterly Journal of Speech and College Composition and Communication.

on the basis of similarity of content and form, linking similarities to regularities of activities, and practices associated to those activities (Helán 2012: 29). Miller (2005:30), in this sense, mentions "rhetorical practice", conventions of discourse that a society establishes as ways of 'acting together'. It is assumed that genres change, evolve and decay; they exist because similar situations[22] –with similar elements and structures– emerge, to which similar responses are required, and which are recurrent, letting conventions develop. Berkenkotter & Huckin (1995:4 in Helan 2012) approach genre within a sociocognitive view, suggesting five principles in its concept; namely, dynamism, situatedness, form and content, duality of structure and community ownership:

> **Dynamism.** Genres are dynamic rhetorical forms that are developed from actors' responses to recurrent situations and that serve to stabilize experience and give it coherence and meaning. Genres change over time in response to their users' sociocognitive needs.
>
> **Situatedness.** Our knowledge of genres is derived from and embedded in our participation in the communicative activities of daily and professional life. As such, genre knowledge is a form of "situated cognition" that continues to develop as we participate in the activities of the ambient culture.
>
> **Form and content.** Genre knowledge embraces both form and content, including a sense of what content is appropriate to a particular purpose in a particular situation at a particular point in time.
>
> **Duality of structure.** As we draw on genre rules to engage in professional activities we *constitute* social structures (in professional, institutional and organizational structures) and simultaneously *reproduce* these structures.

[22] In this sense, some pieces of research have approach medical settings such as hospitals (Schryer, Lingard, Spafford & Garwood 2003), mental health clinics (Berkenkotter 2001, 2008) snd scientific research communities (Bazerman 1981,1988).

> **Community ownership.** Genre conventions signal a discourse community norms, epistemology, ideology and social ontology.

North American Genre Theory considers that genres have an essential role in the construction of disciplinary knowledge and that the mastery of those genres is a condition in the socialization of novice members into the discourse community (Berkenkotter & Huckin, ibid). This approach has been criticised for often accepting and describing current genres uncritically, not including ethical and or political issues in their analysis or –as Freedman & Medway (2005: 10) put it "issues regarding power, status and representation".

The North American School is first relevant to the present thesis as it recognizes the emergence, change, evolution and decay of *e-RRs* in a particular conception. Second, because, in it, regularities of content will be /are inferred in *e-RRs* and then linked to regular activities and practices. Third, the present thesis assumes that the online publication of Editorials and Research Articles may help constitute situations which may have elements and structures in common, and which may elicit similar responses on *thebmj.com* readership and/or *e-RR* writers. These responses can be recurrent helping conventions develop on *thebmj.com* community. Fourth, *e-RRs* can be considered genres in Berkenkotter & Huckin's terms (1995), i.e. they can be considered dynamic, *e-RR* writers are likely to take part in the common activities of the medical community, in their medical practice and as commentators/evaluators. *E-RRs* can be considered as an online written expression of the range of evaluative activities, peer assessment activities, regularly taking place in the medical discourse community; e.g. colloquia after research presentations or lectures and letters to the editor sections in printed

journals. *E-RR* writers seem to be aware of what contents are appropriate in the particular situation of how to react in writing to the publication of an editorial or a research article. As *e-RR* writers spend time evaluating medical research papers and/or editorials, writing them in the form of an *e-RR*, they may be helping constitute and reproduce the social structure of the online written evaluation of editorials and research articles in the discipline.

2.3.2 Definitions/Concepts

In general terms, genre as a term refers to "a group of texts or interactions which share certain features of form, content, purpose and audience" (Fernandez, 2006:24). For Biber (1988) 'genre' is a text category that is inferred on the basis of text properties such as communicative purpose and intended audience. Within the scope of applied linguistics Swales' definition (see page 56) (1990; 2004) has turned out to be most influential.

In this initial definition, purpose is the main criterion to determine the genre of a particular text; however, Swales, later, revised this thought and came to the conclusion that, sometimes, a text can be designed for diverse purposes although the text-type may be recognisable. According to Swales (2004), the concept of genre has evolved into a more complex form and generic boundaries are less clear-cut than they used to be (Swales, 2004). These major changes are probably due to the growing importance of English in international communication, the rise of electronic communications and the emergence of digital genres among others. For repositories of genres, Swales (ibid) suggests terms like "genre networks", "genre sets", "genre hierarchies" and "genre chains".

Bathia (1993) attributed the following features to the notion of genre:

- A genre reflects a recognisable communicative event and this is characterised by a set of communicative purposes
- A genre is identified –and mutually understood– by members of the academic or professional academic community who read it or use it
- It is usually a communicative event with a highly structured nature, which is also highly conventionalised
- It is characterized and limited by constraints (e.g. linguistic, structural) which, if broken, are readily noticed

The aforementioned definitions of genre emphasize the role played by genres as conventionalised social actions, dimension which is also stressed by Fairclough's (1995:14) definition "a socially ratified way of using language in connection with a particular type of social activity."These definitions and characteristics have been incorporated into the notion of *e-RR* in this study, together with the notions of "discourse community" and "communicative purpose" which will be referred to in the following sections.

Different concepts of genre have been offered by several disciplines and approaches; among these we can include applied linguistics, conversational analysis, the ethnography of communication, folklore studies linguistic anthropology, literary theory, the sociology of language and rhetoric.

Some other authors in linguistics provided different notions of genre. Martin (1993) opted for paying attention to "regularities of staged, goal oriented social processes". Miller (1984) focused on the "typification of social and rhetorical

action". Berkenkotter & Huckin (1995:7) stressed its social dimensions, conceptualizing it as part of the "repertoires of typified social responses in recurrent situations". Bazerman (1988:6) considers it "a socially recognized, repeated strategy for achieving similar goals in situations socially recognized as being similar", also emphasizing its social orientation. Particularly, Bhatia (1993: 13) highlighted a definition for the term:

> ... a recognisable communicative event characterised by a set of communicative purpose (s) and mutually identified by the members of the professional or academic community in which it regularly occurs. Most often, it is highly structured and conventionalized with constraints on allowable contributions in terms of its intent, positioning, form and functional value. These constraints, however, are often exploited by members of the discourse community to achieve private intentions within the framework of socially recognised purposes.

According to Henry et al (2001) "the general aim of a genre analysis is to identify the moves and strategies of a genre, the allowable order of the moves, and the key linguistic features". And, following Bathia (1993) "the next step is to explain why these features were chosen by expert users of the genre to achieve their communicative purpose."

Two possible procedures or, ideally, a combination of both, have been suggested for the task of the analysis of a genre (Askehave & Swales, 2001); a context-driven or ethnographic procedure, moving from the investigation of a particular discourse community values, goals and communicative situations towards specific textual features; and, a text-driven or linguistic approach, moving up from analysis of content, structure, style and purpose towards context.

Several authors have offered genre analyses in the academic domain (e.g. Swales, 1981; Dudley-Evans, 1986; Hopkins & Dudley-Evans, 1988; Thompson, 1994; Swales, 1996) and in English for Specific Purposes (e.g.: Bhatia, 1993; Henry & Roseberry, 1996).

For researchers to socialise and fit into an academic discourse community, they have to acquire mastery of its established genres, either printed or online/electronic. The analysis of how language is used in communicative situations and the emphasis on the awareness of its specific and contextually motivated features conducted in Applied Linguistics and Corpus analysis play an important role in helping scientists to participate more effectively in their field discourse practices. The following sections include reference to studies on both printed and spoken genres.

A modern reconceptualization of genre (Helan 2012; based on Bawarshi & Rheiff 2010) conceptualizes genre as fluid and dynamic, and a socio-rhetorical tool; it includes literary and non literary texts, considers it an event/process/action with specific purposes and integrates form and content, product and processes and individual and society.

The three traditional schools of thought, namely, ESP, the Sydney School and the North American Genre Theory share the following defining characteristics of genre (Helan 2012:21): Genre is a social phenomenon, shaped and constrained by conventions, its textual features, structure, purpose and intended audience are shared by genre members and their situational contexts are taken into account when investigated.

Particularly interesting in the context of this thesis is the concept of *review genre.* As for this concept, Hyland (2009) states that "review genres are texts and part texts that are written with the explicit purpose of evaluating the research, the texts and the contributions of fellow academics." For him, academic review genres are crucial sites of engagement where writers argue their view points, signal allegiances and display their credibility. As he puts it (2009:1):

> The expression of personal opinions and assessments is a ubiquitous feature of human interaction and, despite its apparently impersonal façade, central to academic writing… what academics mainly do is to evaluate. Their research and publishing is a continual round of comparing methods, assessing sources, weighing up outcomes, contrasting claims and considering data. They are constantly making judgements about whether samples are representative, findings are accurate and interpretations valid. The text they produce while conducting these activities reflect this concern with evaluation and its expression pervades research articles, lectures, conference presentations, textbooks and student assignments.

For Hyland (ibid) the range of review genres includes book reviews, the review article, the book review article, the review of literature in a PhD thesis and the back-cover book blurb. But, to the best of our knowledge, no study has attempted a description of electronic rapid responses in medicine.

2.3.3 Moves, steps & strategies

Move analysis (Swales, 1981, 1990) has revealed itself as a powerful tool for exploring a discourse's argumentative structure or internal organization. Its main aim is to gain an insight into the communicative purpose and structure of a discourse genre as revealed by recurrent moves or constituent schemata. To the best of my knowledge, however, Move analysis, has not been applied to the

subgenre of electronic rapid responses. Therefore, I deemed it important and revealing to perform this research.

The unit of **Move** enables the categorization of chunks of text in terms of their particular communicative intentions (Yang & Allison, 2003). Move has been defined as "a semantic unit relevant to the writer's purpose" (McKinley, 1983, cited in Dudley-Evans, 1986). Nwogu (1997:114) has defined it as "a text segment made up of a bundle of linguistic features (lexical meanings, propositional meanings, illocutionary forces, etc.) which give the segment a uniform orientation and signal the content of discourse in it".

Swales offered a two-layer analysis in terms of Moves and steps in his CARS (Create a Research Space) model (1990). Moves constituted functional components, basic elements of a genre. Moves mark off the boundaries between the rhetorical stages through which discourse unfolds, and are realised by smaller text units named 'steps'.These 'steps' constituted the elements the writer used to accomplish the communicative purposes associated with the moves. In his framework texts contained recurring functional units which contributed to the general purpose of the genre. Moves are then realized by an agglutination of elements called 'steps' by Swales or 'strategies' by Bathia (1993).

The related literature has revealed that **variables** such as discipline (Samraj, 2002; Crookes, 1986), the section of the genre (Dudley-Evans, 1994) and the cultural or linguistic background of the text producer (Cmerjkova, 1996; Taylor & Chen, 1991) and the nature of the audience (Nwogu, 1997: Thompson, 1994) have an effect on academic genre structure.

As the present thesis is a practical study of genre analysis, we have looked into the rhetorical structure of *e-RRs*. The organizational structure of *e-RRs* has been analyzed in terms of moves and strategies, that is, in Bathia's (ibid) terms, for the reason that the concept of strategy seemed to refer better to *e-RR* writers written behaviour in relation to a context with high levels of complexity.

2.3.4 Discourse communities

The ESP genre approach has highlighted that professional writing should be conceptualized as a communal activity. The reasons why this can be assumed to be so are that, firstly, implicit rules and established conventions of a discourse community restrict both genre form and content, and that adherence to these tacit regulations lets authors become accepted members of a discourse community. Secondly, it is what Prior (2006) considered the mediated character of academic writing, i.e. that during which "the author reads, interprets and accepts/rejects other author's arguments in his/her text or when he/she discusses the writing with their colleagues and makes changes accordingly."

BMJ e-RR writers work individually or sign *e-RRs* as a group. They are likely to have read, interpreted and accepted/rejected the contents a corresponding editorial or research article, and they are likely to have discussed them with their colleagues formulating their *e-RRs* accordingly, bearing in mind the established conventions and implicit rules in the medical discourse community. Hence, *e-RR* writing may be considered as a communal activity, and, as such be the product of a discourse community (Swales 1990), 'speech community' (Irvine 2006), an

interpretive community (Fish cited in Harris 1989) and/or a community of practice (Smith 2003).

For Swales (1990: 24-27)

- A discourse community has a broadly agreed set of common public goals
- A discourse community has mechanisms of intercommunication among its members
- A discourse community uses its participatory mechanisms primarily to provide information and feedback
- A discourse community utilises and hence possesses one or more genres in the communicative furtherance of its aims
- In addition to owning genres, a discourse community has acquired some specific lexis
- A discourse community has a threshold level of members with a suitable degree of relevant content and discoursal expertise.

The medical community in general and the *BMJ* medical community in particular have a set of common goals, those of improving health, and, more specifically those outlined in the *BMJ* webpage. The *BMJ* interface can constitute one of their mechanisms of intercommunication, together with other Internet applications. The rapid response interface is used to provide feedback on medical papers and also to add information and these are also provided during the peer review process. *E-RRs* can be considered one of the emerging subgenres the medical community possesses together with research papers, case reports, editorials, medical news, health-related blogs, among others. *E-RRs* reveal the usage of specific medical

lexis. The range of author backgrounds of *e-RR* writers is wide including physicians, medical researchers, patients, other professionals, as well as students. There seems to be a threshold level of self-selected members who write *e-RRs* (experts) with a suitable degree of relevant content and discoursal expertise, their contributions will be studied in our qualitative research (see chapters 5 and 6).

Following Barton's definition (cited in Corbett 2006: 30), a discourse community can refer to several overlapping groups of people, and following Corbett's (2006: 30) they are dynamic groupings; definitions that we think describe the *BMJ* readership. In this sense Hyland (cited in Helan 2012: 36), acknowledging the social nature of academic discourse, states that "communities are frequently pluralities of practices and beliefs which accommodate disagreement and allow subgroups and individuals to innovate within the margins of its practices in ways that do not weaken its ability to engage in common actions".

In this line of thought, Swales (1998:22) approached how discourse communities could be sub-classified according to the degree of engagement of their members. Thus, he distinguished between:

- A place discourse community. That is, a group of people who regularly work together, and have developed a set of genres for the regulation of the roles that each has to play within the community
- A focus discourse community, i.e. A group of people that are joined by a shared focus of interest (this could be a disciplinary community or a professional association)

Swales' distinction can be useful for characterizing *e-RR* authors, as observationally it has been established that, some of the *e-RR* authors who sign a *e-RR* together work and/or conduct research in the same health institution. In other words, they are members of the same place discourse community. Furthermore, we can assume that authors posting responses to the same editorial or research article share a focus of interest which transcends the particular papers, and constitute an area of specialization, i.e *e-RR* authors are often members of focus discourse communities.

2.3.5 Research into EAP

Within a discourse community such as medicine there are a range of recognised genres that constitute a system and are mutually defining. New genres are emerging with the presence of Internet; they are used by the same research community and share a certain intellectual tradition. E-genres add to and complement previously existing ones, arising with particular purposes and fitting into the map of genres of the particular discourse community.

Research-related genres such as research articles, editorials, conference presentations, and *e-RREs*, address a wide range public whose knowledge is extensive, and have a range of purposes. However, each genre and/or event is determined by radically different contextual constraints and this impacts on the choice of content, language, and rhetorical strategies that eventually conform the final product of the genre.

Genre	Purpose
Research Article	Present product of own research
Conference Presentation	Present work-in-progress or proto-claims
Editorial	Present a state-of-the-art overview of a particular area, field, dilemma, development, or question.
e-RRE	Present a Post Publication Review of an Editorial
e-RRRA	Present a Post Publication Review of a Research Article

Figure 2.3. Purpose of research-related genres

The purpose of scientific research communication is both informative and rhetorical –i.e. it aims to persuade. The relationship of the author with the readership or audience varies according to the communicative situation of the genre; e.g. hard science writers minimise their apparent presence in the text, and let the data speak, whereas in Conference Presentations a feeling of solidarity with the audience needs to be built up (Rowley-Jolivet & Carter-Thomas, 2005).

2.3.6 Research into Genre Analysis and ESP

A seminal work in the tradition of the study of genres in ESP is that of Swales (1990). Swales identified the rhetorical structure of 48 introduction sections of research articles in physics, medicine and social sciences using the method of structural move analysis. This method consisted in a corpus-based characterization of the organizational and textual patterns typical of a particular genre, the research article, that reveal either rigid or flexible structures, and stylistic features influenced by conventions. His study revealed that texts

contained recurring functional units which contributed to the general purpose of a text, and that these units could be realized by a combination of elements, which he named 'steps'. Swales' analysis (1990) yielded a schema for article introductions that he termed CARS (Create a Research Space). He (1990) presented a model for analyzing the structure of Research Article Introductions (the CARS model). His unit of analysis was the 'move', which consisted of several 'steps' –these were defined as specific communicative strategies which, combined, will constitute the information that comprised a 'move' (Fig. 2.4.).

Move 1 Establishing a territory

Step 1 Claiming centrality, and / or
Step 2 Making topic generalisation, and / or
Step 3 Reviewing items of previous research

Move 2 Establishing a niche

Step 1A Counter claiming or
Step 1B Indicating a gap or
Step 1C Question raising or
Step 1D Continuing a tradition

Move 3 Occupying the niche

Step 1A Outlining purposes or
Step 1B Announcing present research
Step 2 Announcing principal findings
Step 3 Indicating RA structure

Figure 2.4. CARS model for Article Introductions (Swales, 1990: 141)

According to Swales (1990), article introductions are essential in order to gain readership, as potential readers are likely to decide whether to read an article on the reading of its introduction. The main purpose of Move 1 *Establishing a*

territory is to convince the expert audience of the significance of the study. This move provides background information that helps preview the particular topic to be studied. RA writers refer to the existing published research to make strong claims in its respect. The purpose of Move 2 *Establishing a niche* is to spot the areas of research revealing under researched areas, or areas requiring further investigations to, often, identify a gap in current knowledge, and give their opinions on the relevance of their research in current knowledge. A specific issue or problem is identified which may question or challenge existing claims to knowledge. Move 3 *Occupying the niche* has the purpose of stating the purpose of their research, the structure of their research and its main findings. The aims, content and structure of the article are indicated in reference to the established background information. Swales & Feak (1994) revised the CARS model for research article introduction as follows:

Move 1: Establishing a Research Territory

- Showing that the area of study is relevant, important, critical or making general comments (optional)
- Introducing or Reviewing items of previous research (obligatory)

Move 2: Establishing a niche by:

- Counterclaiming or Indicating a gap in previous research; or
- Question raising and; Continuing a tradition (obligatory)

Move 3: Occupying the niche by:

- Showing purposes or establishing the nature of research (obligatory)
- Announcing principal findings (optional)
- Indicating research article structure (optional)

Figure 2.5. CARS revised by Swales and Feak (1994)

Some objections made to Swales' model for article introductions referred to its disregard of disciplinary/professional genre variation due to professionals/researchers' other/different communicative needs. Hence, Swales revised the CARS model some time later (2004):

CARS MODEL FOR ARTICLE INTRODUCTIONS (2004)	
MOVES	**STEPS**
MOVE 1: **Establishing a territory (citations required) via Topic generalizations of increasing specificity**	
MOVE 2 **Establishing a niche (citations possible) via:**	STEP 1A: Indicating a gap, or STEP 1B: Adding to what is known STEP2: Presenting positive justification (optional)
MOVE 3: **Presenting the present work via:**	STEP 1: Announcing present research descriptively and/or purposively (obligatory) STEP 2: Presenting research questions of hypotheses (optional) STEP 3: Definitional clarifications (optional) STEP 4: Summarizing methods (optional) STEP 5: Announcing principal outcomes (optional) STEP 6: Stating the value of present research (optional) STEP 7: Outlining the structure of the paper

	(optional)

Figure 2.6.Swales' revised model for research article introductions (2004: 230-232)

In Swales' most recent model steps 2-4 are less fixed in their order of occurrence than other steps, and steps 5-7 have different degrees of probability of occurrence across disciplines. Many researchers in the tradition of ESP have adopted the method employed by Swales, structural move analysis, in their studies; the next section looks into the research carried out in the field of medicine.

2.3.7 Genre Analysis in Medicine

This section outlines the contributions to the study of medical language that are most relevant to this research. As Helán (2012) points out, Medical language has been the object of research in disciplines such as discourse analysis, medical sociology and semiotics. (see Fleischmann 2003, Gotti & Salager-Meyer 2006 and Salager-Meyer 2014 a, b for a more detailed description of the research approaches to medical discourse). These approaches have focused, in both the spoken and written language in the field of medicine. Research has focused on the **spoken language** employed in doctor-doctor, doctor-patient communication and the genres employed in their interaction.

Descriptive approaches to medical language have investigated the rhetorical structure of genres either synchronically or diachronically (e.g., Skelton 1994, Taavitsainen & Pahta 2000), whereas critical approaches have paid attention to the hidden assumptions in a particular genre (Charon 1992, Anspach 1988).

Doctor-patient communication has been studied in the frameworks provided by interactional sociolinguistics, discourse analysis and the ethnography of communication. The aforementioned studies have focused on the types of speech acts or the identities and/or roles played by participants, in these the balance of power between participants, and the way the emerging discourse is controlled by the participants have raised considerable interest (Ainsworth-Vaugh 2003; Černý 2006; Wodack 2006). Nurse-patient communication and specialist communication have also received attention, together with medical case presentations (Fleischman 2003) and medical slang (Wear et al. 2006).

Studies on medical written discourse have focused mainly on the genres used in the medical discourse community. The medical research article[23] (e.g., Skelton 1994, Nwogu 1997, Li & Ge 2009), abstracts (e.g., Salager-Meyer 2006) and letters to the editor (e.g. Carnet & Magnet 2006) have raised great interest (for a summary of research on academic genres in medicine see Piqué Angordans & Posteguillo 2006). Medical case reports have also received close attention (e.g: Charon 1992, Donelly 1997, Helán 2012).

Written discourse studies into the medical research article have focused on its structure in general, and on the method, results and discussion sections. Skelton's (1994) study of fifty medical papers drawn from *The British Journal of General Practice* yielded 15 moves which had an optional –rather than obligatory– character.

[23] Since Swales' seminal work on the introductions of research articles, these have raised considerable interest, for a more comprehensive account see section 2.4

	MOVES	FUNCTION
INTRODUCTION	Creating a research space	
	1	Stating the relevance of the study, asserting the importance of the field of study.
	2	Contextualizing it in the literature, discussion of previous literature to contextualize the study in a recognized research tradition.
	3	Claiming its novelty, drawing attention to a gap in the literature, and assertion that a particular research question requires an answer.
	4	Stating its purpose, stating the writer's aim typically to fill the gap indicated at move three
METHODS	Describing procedures used and asserting their credibility	
	5	Identification of the population to be studied (plus tied move: assertion of the inclusiveness of the population under study)
	6	Description of the procedures used (plus tied move: overt justification of the choice of procedure by reference to the literature, a pilot study, or consultation procedure)
	7	Naming of statistical tests to be used (plus tied move: justifying statistical choices)
RESULTS	Describing (but not interpreting) data in an ostensibly objective manner	
	8	Adjustments and exclusions from the original population
	9	Representation of some part of the results in tables
	10	Discussion of data in words
	11	Assessment of the data
DISCUSSION	Contextualizing the research and asserting its value	
	12	Stating limitations and defending successes
	13	Presenting central achievements of the study
	14	Contextualizing the researcher's procedures and findings in a relevant research tradition by pointing out that they were in accord, or compared well with those of another study (validating the paper by claiming membership to the academic community)
	15	Offering recommendations about what should or must happen

Figure 2.7.Skelton's Medical research Paper structure (1994; cited in Helán 2012: 48)

Nwogu (1997) analyzed 30 medical research articles drawn from five journals which have a corresponding online version, these are the following: *British Medical Journal, Journal of Clinical Investigation, Journal of the American Medical Association, Lancet and New England Journal of Medicine*. His analysis yielded a rhetorical structure characterized by eleven moves (either obligatory or optional).

MOVE	DISCOURSE FUNCTION	SECTION
1	Presenting background information	**INTRODUCTION**
2	Reviewing related research	
3	Presenting new research	
4	Describing data collection procedure	**METHODS**
5	Describing experimental procedure	
6	Describing data-analysis procedure	
7	Indicating consistent observations	**RESULTS**
8	Indicating non-consistent observations	
9	Highlighting overall research outcome	**DISCUSSION**
10	Explaining Specific research outcomes	
11	Stating research conclusions	

Figure 2.8. Medical research paper (Nwogu, 1997)

Li & Ge (2009) studied fifty medical research articles observing that their rhetorical structure was not static. Williams (1999) focused on the results section of four clinical reports and four experimental reports concluding that the results section was characterized by a greater disciplinary variety, compared to the introduction and discussion sections. Skelton & Edwards (2000) studied the discussion sections of *BMJ* medical research articles suggesting that discussion sections could be considered as places to speculate about the presented results by the researcher. Rundbland (2007) examined nine methods sections in *BMJ*

medical research articles observing that researchers used agentless passives and metonymy, impersonalized constructions, to disguise their authorial voice. Atkinson (1992) identified a content schema of medical case reports, and Helán (2012) offered a genre approach to case reports.

Particularly relevant to this study, is the problem-solution pattern suggested by Hoey (2001) as an extended strategy in written discourse in general. According to him, it is culturally popular, and is usually rather complex, presenting recycling until the positive evaluation is attained (see figure 2.9. below):

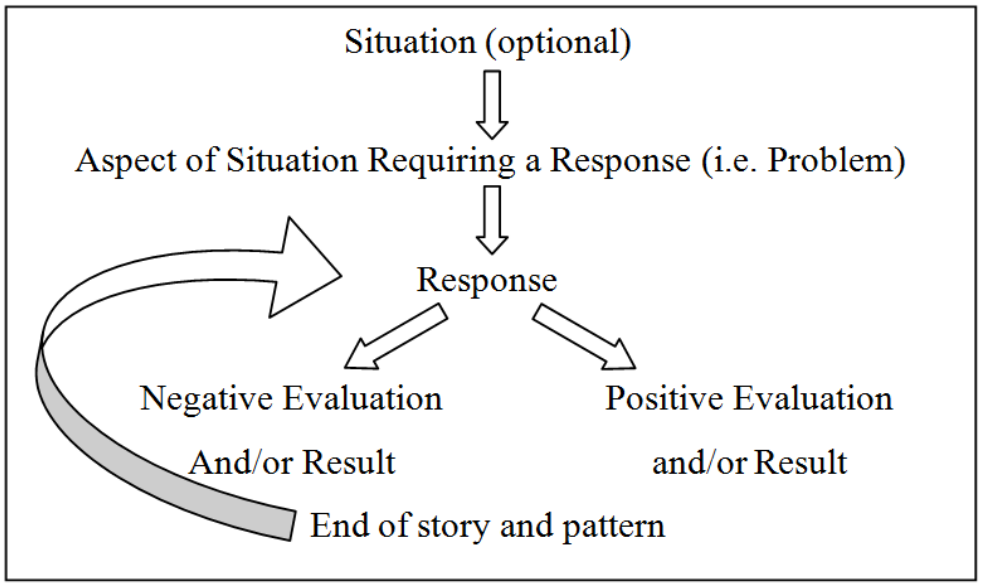


Figure 2.9. Hoey's (2001: 130) problem-solution pattern in the organization of texts

A second line of research has paid attention to the linguistic features of the medical research article as a genre. Thomas & Hawes (1994) registered reporting verbs in eleven research articles in psychosomatic medicine. Marco (2000) studied collocational frameworks in fifty *BMJ* medical papers and fifty *NEJM* medical papers. León & Divasson (2006) studied postmodification of noun phrases in twenty medical research papers –both syntactically and rhetorically–

and observed high levels of nominal postmodification in the introduction and discussion sections attributing it to their argumentative and persuasive character.

Studies of the medical case history have revealed that doctors use rather a narrative style and to exclude the voice of the patient; following Hunter (1991, 1992 in Helán 2012:14) within medicine there exists a conflict between its identification as a science and its practice as an interpretive activity. As a science, medicine strives for "logical positivism, which only recognizes scientifically verifiable, objective, data-driven, and definite claims." As practice, it "takes into account interpretation, narrativity, uncertainty, and potential fallibility of clinical facts". Monroe et al (1992) observe that doctors, when writing up patients' histories, intend to obtain scientifically valid descriptions. Even the allegedly scientific data obtained from medical tests and diagnoses procedures require certain levels of interpretation and evaluation. In general terms, narrative seems to be avoided due to its subjective, 'soft', unreliable mode of communications, and only descriptions with quantifiable data are regarded as objective 'hard' science.

2.3.7.1 Letters to the editor in Medicine

Letters to the editor are understudied printed subgenres and according to Vazquez (2005: 147), their purposes are to show agreement or disagreement with previous studies and to explain scientific information.

The Rhetorical Structure of printed Letters to the Editor was identified by Vazquez (Vázquez, 2005) in a contrastive study of Spanish and English Editorials and Letters to the Editor in medicine. She used Paltrige's framework (1997) for

analysis. In her study the units of analysis were moves and steps, as shown in table 2.10. below:

Letters to the Editor	
Moves and Steps %	
Introduction (A)	
SA-Salutation	64
PR-Previous Research	72
R/JS-Results/Justification for Study	80
BI-Background Information	60
Development (B)	
BI-Background Information	72
PRS-Presentation of Study	80
MA/PS-Materials/Purpose of Study	56/24
ME-Methods	52
R-Results	56
Final Conclusion (C)	
CO-Conclusions	100
IG-Indicating a gap	88

Figure 2.10. Rhetorical Structure of Letters to the Editor (Vázquez, 2005:156)

Nowadays, letters to the editor are formal articles submitted for publication that may be peer reviewed and often include authorship and disclosure of conflicts of interest. In the past letters evolved into journals, which stem from the fact that there was a need to print the correspondence between doctors – so that they could share experiences, and knowledge. This communicative need is now met online, on *bmj.com* through *e-RRs* and emails.

According to the International Committee of Medical Journal Editors (1997) letters to the editor are an essential part of post publication review. In fact, a recommendation has been issued in the sense that all biomedical journals should contain a section carrying comments, questions or criticisms about articles, a section where the original authors can respond.[24]

2.3.7.2 English as a lingua franca on the Internet and in medicine

Nowadays, the widespread use of English as a global *lingua franca* on the Internet is recognized (Crystal, 2001:227). Within the academic world, English as a *lingua franca* has been a dominant language through which academics and researchers communicate especially when their native language is different to English, this is also true for medicine. Most medical research is published in English, and English seems to have growing presence in countries in which English is a second language (at an intranational level) or a foreign language (at an international level).

The usage of English as a *lingua franca* in medicine has been considered to entail the disadvantage of enhancing the doctor-patient power relationship, especially in the case of those patients with a limited knowledge of English, who face the inhibition of their communication with their doctors and the lack of appropriate access to medical knowledge (Maher 1986: 217, cited in Helán 2012). Some of the advantages of its widespread use as a means of transmission of medical information are that it is increasing the homogenization of the content taught in

[24]As for review genres in medicine, the medical book review has elicited interest. Studies on medical book reviews have focused on critical speech acts (Salager-Meyer, 2001) and a cross-cultural approach to negative appraisals (Salager-Meyer & Alcaraz Ariza, 2007).

medical schools around the world, and that it is producing the standardization in ESP language instruction at an international level. On *thebmj.com* English is used by native speakers and speakers of English as a second language, who post research articles, editorials, *e-RREs* and *e-RRRAs*.

2.3.8 Corpus Linguistics

One of the main objectives in this thesis is the quantitative and qualitative characterization of a corpus of *thebmj.com e-RRs* as examples of English as a *lingua franca.* Corpus linguistics has proved to be a most powerful approach in this respect.

Owing to the increasing use and applications of computers, corpus linguistics has developed into a relevant sub-field in applied linguistics (Johansson & Stenström, 1991; Kennedy, 1998; Tognini-Bonelli, 2001; Leistyna & Meyer, 2003). It is an approach for studying discourse that is based on the collections of texts for analysis. The assumption –and what the researcher sees to– is that the selected texts represent the variety of language object of study, to then observe similarities and differences in their discourse and infer regularities.

Conrad (2003: 385) in this sense has defined corpus linguistics as "an approach to investigating language that is characterized by the use of large collections of texts (spoken, written, or both) and computer assisted analysis methods." Conrad (2003) has also specifically defined corpus as a powerful computer archived collection of natural language that can be studied both quantitatively and qualitatively. This approach considers language description as a matter of objective fact, not as a matter of subjective speculation. Linguists (Biber, 1998)

can use corpora as real examples of language use as corpora can capture linguistic behaviour and represent different text 'genres', whose features can be studied in depth. Wonner (2005:4, cited in Fernandez Sanchez, 2006) highlights the idea that, in collecting real life examples, linguists find plenty of objective material that seems to offer the answers to all linguistic questions.

One of the purposes of this thesis is to use large real life collections of written texts, drawn from *thebmj.com* website and online archive, assuming they can be considered real examples of language use in *thebmj.com* medical community and also that these collections of written texts can represent an emerging subgenre of the *e-RRs*, to, then, analyze them using computer assisted analysis methods.

Following Biber *et al* (1998) corpus-based analyses:

- can be characterized as empirical –i.e. they allow researchers to analyse actual patterns of language use in natural texts.
- make use of a corpus –a large and principled collection of naturally occurring texts.
- make use of language software[25].
- depend on both quantitative and quantitative techniques.

A corpus, then, must be well designed and documented for the research to have a solid basis. To make sure a corpus is well designed the researcher must bear in mind the criteria of purpose, representativeness, size, balance and contextual information.

[25] Corpus software packages today often provide means of analysing frequency, phraseology and collocations (Hunston, 2002:12)

As for representativity, this is a study of different subcorpora of *e-RRs*, considered *representative* of the universe of *thebmj.com e-RRs* in the time span studied. Bearing in mind the evolving nature that seems to characterize web documents, the scope of our corpus was narrowed down to offer a synchronic picture of *e-RRs* corpus. A computer-based corpus of these digital documents seemed most suitable as the parameters to be estimated in their study are accurately calculated by statistical packages installed in computers.

In this sense our purposes in this study were:

- To observe *e-RR* texts and infer regularities
- To register variation across the *e-RR* subcorpora
- To observe how discourse unfolds in *e-RRs* according to their rhetorical purpose and proceed to an analysis of the textual organization of the subcorpora of *e-RREs* and *e-RRRAs*

More specifically,

- Two subcorpora of *e-RRs* have been used of a *linguistic analysis* of *e-RREs* and *e-RRRAs*; regularities have been observed and generalisations have been made about the language features of the *BMJ* discourse community. Basic statistics in *e-RRs* have been observed and variation across the *e-RR* subcorpora has been registered.
- Two subcorpora of *e-RRs* have been used for a *move & strategy analysis* of the *e-RREs* and *e-RRRAs* employed by the *BMJ* discourse community in their online communication with the journal's international readership.

The subcorpora are large, and have been assumed as representative of the *e-RRs* in the time span studied. This will provide a sound basis for the accurate interpretation, generalizability and validity of our results. Efforts have been made to ensure a balanced corpus of *e-RREs* and *e-RRAs* and contextual information has been referred to for interpretation.

2.4 Chapter summary

This section has outlined the main traditions framing *thebmj.com e-RRs* as our object of study, namely those of CMC, genre analysis and medical discourse. The following chapter describes the procedures used for the selection and treatment of our data to achieve the purpose of testing the hypotheses explicited before.

CHAPTER 3.

METHODOLOGY

3.1 Introduction

In chapter 2, reference has been made to those traditions framing our study, those of CMC & Genre Analysis in medicine, which have been characterized by a number of methods and procedures many of which are present in our research.

This chapter comprises the methodology employed to test our hypotheses and answer the questions in this study. I make use of the methods in the tradition of Quantitative Applied Linguistics and Genre Analysis. First, I specify the criteria for the selection of the corpus. Second, I describe the corpora for the quantitative and qualitative approaches to *thebmj.com e-RRs*. Third, I make reference to the software employed in the quantitative study. Fourth, I provide a description of the quantitative and qualitative analyses of *thebmj.com e-RRs*. Fifth, I present the list of *e-RR* texts. Finally, I refer to the operational research framework for our research.

In this chapter I describe the methods employed in our corpus-based study of medical discourse in online *e-RRs*. In these I emphasize our efforts at achieving a balanced and representative corpus to ensure the validity and reliability of procedures and results. I also present the criteria for the selection of texts and the main features of the subcorpora of *e-RRs*.

3.2 Criteria for the Selection of the Corpus

The main criteria for the selection of the corpus to be studied are the relevance of the journal in the medical field and in the worldwide scientific community, its representativity and its accessibility on the web.

3.2.1 Journal relevance

The British Medical Journal is an international publication with a worldwide readership. It is a professional refereed e-journal and print journal. *The BMJ*'s impact factor is 17.445 (ISI Web of Science, 2015). Accordingly, it is considered one of the most relevant online journals in the field of medicine. Hence, *thebmj.com* is and was an open access journal, with open access to the journal archives. *The BMJ* webpage included many interactive features, among these the possibility for readers to post e-Rapid Responses to virtually all the sections in the journal.

Thus, *thebmj.com* can be considered to have belonged to the open access movement and to the open review movement. In this sense e-rapid responses are part of the post publication review process of e-articles and e-editorials in the medical field.

3.2.2 Representativity

This is a study of a corpus of a group of e-subgenres from a particular profession, medicine. In this sense the texts that make up the corpus are considered to represent authentic online discourse of the medical discourse community and it therefore represents authentic language for further study and research.

This study is also a look into the e-subgenres present in a particular online journal during a specific period of time. That is, this research offers a synchronic view of *e-RRs*. As this is the scope of this study, results are only generalizable to this particular journal and this time period.

To ensure the sample is comprehensive and unbiased the sampling procedure has been carried out at random and systematically. The following features help ensure the representativity of the sample:

- The *e-RRs* in the corpus for qualitative study have been written by expert members of the medical profession.

  These *BMJ* authors work in hospital settings, medical research centres, university teaching hospitals; they are likely to move from hands-on medical practice to research and/or teaching or conferencing. Strict criteria for the selection of experts were followed, for the exclusion of non-experts.

- The *e-RRs* in the corpora for quantitative study belong to the wider *BMJ* readership. Therefore laymen, doctors, patients and undergraduate medical students can also be found among them. E-rapid response authorship in the quantitative study allows for patients, students, PhD researchers together with accomplished physicians, and medical scientists, all members of the worldwide *BMJ* community. E-research articles are usually written by researchers in a specific medical field and electronic editorials tend to be written by accomplished members in the medical discourse community.

The *e-RRs* in both sets of corpora can be both the individual and joint work of a group of authors. This suggests the presence of collaborative work in the production of e-Rapid Responses; namely, in the review of editorials and research articles.

Most of the authors of the corpora for analysis are native speakers, for some others though, English is their second language, or *lingua franca*, in their countries of origin (e.g. India).

The *BMJ* refereeing and editing processes ensure that both the language and the knowledge claims in the e-genres in the corpus conform to acceptable standards in the medical field.

3.2.3 Accessibility

Accessibility may be conceptualised as the ease with which texts which constitute the corpus of a particular study can be obtained by the researcher. In this sense it can be said that accessing the *BMJ* webpage was and is easy for Internet users as it was, it is an open access journal and its content and archives are available on the internet.

On the other hand, accessibility may also be construed to mean the extent of knowledge which the researcher has about the content of discourse in the text being analyzed. In regard to this second issue, ESP language analysts often face the situation of conducting research into texts of a professional field in which they cannot claim specialist knowledge. When reading the *e-RRs* that constitute the corpus of the present study, I consider medical language texts to be transparent,

probably due to my background in psychology as well, which shares scientific, conceptual, procedural and pharmaceutical knowledge with medicine.

This study focuses on the quantitative and qualitative linguistic and rhetorical features of e-texts. The quantitative and inferential processes involved have to do with language. However, it is the online communicative situation, which, despite sharing features with other communicative situations in scientific writing, turned out to be complicated and thought-provoking. As I considered possible limitations in the understanding of the context –the social, procedural and financial implications– of the text statements and argumentation in the corpus, collaboration with a Professor in the Faculty of Medicine from the University of Valencia was sought.

The use of specialist informants for this absorbing and technical purpose has been considered accepted practice in ESP (Selinker, 1979; Bley-Vroman & Selinker, 1984; Huckin & Olsen, 1984), although it has also been criticized for the danger of believing what you hear as a researcher (Swales, 1987:125). In this sense I was very grateful to the informant, and considered his interpretations as careful insights into medical reality which helped me to reach a deep understanding of the e-texts in this corpus.

3.3 The corpus

In our study, both *thebmj.com e-RREs* and *e-RRAs* are assumed to be electronic letters to the editor following *thebmj.com* editorial policy, a distinct online

subgenre as they are a recognised communicative event in the worldwide *BMJ* medical community. Distinction has been made among:

- E-Rapid Responses to online Editorials (for quantitative study).
- E-Rapid Responses to online Research Articles (for quantitative study).
- E-Rapid Responses to online Editorials (for qualitative study).
- E-Rapid Responses to online Research Articles (for qualitative study).

Four corpora from *thebmj.com e-RRs* were established for quantitative and qualitative research. The texts which constitute the corpora were drawn from the *e-RRs* archives on *thebmj.com*. The texts were randomly selected. As no previous work in the field of Corpus Linguistics has offered a study of these review e-subgenres or made a distinction between them, this study aims to find out whether this distinction is adequate. E-Rapid Responses can be conceptualized initially as an immediate, spontaneous, possibly brief written expression of the initial cognitive and emotional response elicited by an e-article on *thebmj.com* in a reader.

It is not always clear whether e-responders authors were native English speakers or not, but distinction between native speakers and non-native speakers was not made as it was evident that English as a *lingua franca* characterized *e-RRs*. This is probably due to the fact that the *BMJ* policy of acceptance of papers and e-rapid responses is to let papers go through a review and editing process and to allow for the publication of all e-rapid responses as long as they contribute to a debate – regardless e-responders' origin (and even facilitating *e-RR* comprehension suggesting the use of 'of compounds' rather than noun clusters).

The corpus for the cross-genre quantitative study of the language used on *thebmj.com e-RRs* was made up of 1,750 texts, large enough to be representative for the quantitative analysis of the population of *e-RRs*.

The 875 texts which make up the subcorpora of *e-RREs* constitute the total number of *e-RREs* for the period investigated. That is, they constitute the population of *e-RREs* for that year. To achieve a balanced corpus, a parallel 875 *e-RRRAs* were retrieved at random from *thebmj.com* online archive.

The corpus for the qualitative analysis (rhetorical structure identification) was made up of a total of 200 e-rapid responses, posted to online editorials and research articles. This corpus for rhetorical analysis was much larger than those studied in previous works in the field (with number of papers in studies ranging mostly from 10 to 40 -see introduction section); however, we thought it necessary as its description would offer a comprehensive view of *thebmj.com* e-rapid response rhetoric, and also because the large rhetorical inner variability of e-rapid responses to online editorials made a large corpus necessary to infer corpus characteristics correctly. For the gathering of the *e-RRs* in our corpora strict selection criteria were applied and they constitute examples of expert-to-expert communication.

3.3.1 Data collection

This section makes reference to the description of the sampling procedure of *e-RRs* from *thebmj.com* for comparative purposes. A total of 1,750 E-Rapid Responses –in html format– were downloaded from *thebmj.com* webpage for quantitative analysis. 200 *e-RRs*, examples of expert to expert communication

were identified and retrieved from the online archive on *thebmj.com* for the qualitative study. (see section 3.3.3 for the specific procedures).

3.3.2 Corpus Size

As noted before, our purpose in this study is to present an insight into a complex cluster of electronic subgenres on *thebmj.com*, a large corpus size was thought necessary to ensure representativity.

The following table summarizes the contents of our corpora, together with their file and folder names on the disk attached, yielding a total of 523,143 words:

The corpus for the present quantitative study consists of 1,750 *e-RR* texts; these have been subjected to study in terms of word frequency:

***e-RR* Type**	**Number of texts**	**Number of words**	**Folder Name on Disk**	**File Name on Disk (txt)**
e-RRRAs	875	260,651	ERRS	ERRRAS
e-RREs	875	272,264	ERRS	ERRRES

Table 3.1. Corpus for quantitative study

The corpus for the qualitative study consists of 200 *e-RR* texts; these have been subjected to study, and analized in terms of moves and strategies per *e-RR* type:

***e-RR* Type**	**Number of texts**
e-RRRAs	100
e-RREs	100

Table 3.2. Corpus for qualitative analysis

3.3.3 Corpus Storage and Handling

Our sampling procedure for the quantitative study of *e-RREs* and *e-RRRAs* was as follows. After entering the *BMJ*'s webpage, I selected the 'Archive' link, and then double-clicked on the 'online issue archive' link. Looking into the 2000 decade I again double-clicked on the archive link. Then, I systematically double-clicked on each weekly issue menu for the specific period / year studied. When the weekly issue web page opened up I double-clicked on the 'editorial' link to sample *e-RREs,* and on the 'research' link to sample *e-RRRAs*. After that, I double-clicked on the 'Read responses to this article' link which appears on the right and saved and printed out the html document which opens up. It includes the e-rapid responses to a particular e-article. All the *e-RREs* for that period were selected for the quantitative analysis, this added up to a total of 875 *e-RREs* which constitute the population of *e-RRREs*. A parallel 875 *e-RRRAs* were retrieved from *thebmj.com* for the same year at random, to ensure avoidance of biases.

Files were then converted into texts. In the process of converting the e-Rapid Response html files into text the following procedures were followed and the following sampling decisions were made:

- The title was included
- Authors' names, professional background and link to journal were removed as they appeared in only some of the rapid responses, with homogeneity purposes.
- The 'competing interests' statement was excluded.
- The references were excluded.
- The signature –name and background- were excluded.

Strict criteria for the distinction of expert-to-expert communication texts have been implemented, singling out those *e-RRs* which met the criteria of affiliation to medical centre and author medical position. When analyzing the subcorpora of *e-RREs* and *e-RRRAs* to identify their schematic structure, it was revealed that some text segments might have had more than one function. In such cases the most salient purpose has been encoded. Sections for analysis, moves and strategies, were identified on the basis of their communicative purpose/s. Hence, the corpus analysis involved repeated readings, to progressively become aware of lexical signals such as lexical items, metatextual expressions and discourse markers; and take into account the propositional meaning of the text segment, the overall purposes of the move and strategy. Strategies with frequencies lower than 3 have been disregarded. *E-RRs* seemed to reveal their distinct nature with multiple levels of embedding in their schematic structure. We consider a move or strategy to be embedded in another move or strategy when the realisation of the former is part of the latter. Owing to this difficulty, I have attempted to offer an essential picture of *e-RR* structure in this study. I have registered the presence or absence of moves and strategies in every *e-RR* in the corpora.

3.3.4 List of Electronic Rapid Response Texts

The following texts make up the corpus of this study for quantitative analysis:

- e-rapid responses to research articles (see file ERRAS on disk)
- e-rapid responses to editorials (see file ERRES on disk)

The following texts make up the corpus of this study for qualitative analysis, analysis of the *e-RR* rhetorical structure:

- List of e-rapid responses to research articles (see appendix 3.1)
- List of e-rapid responses to editorials (see appendix 3.2)

3.4 The Operational Research Framework

As our main purpose in this dissertation is twofold; to characterize the language used in *e-RRs* from the perspective provided by Quantitative Applied Linguistics and corpus linguistics, and to infer the rhetorical structure of *e-RREs* and *e-RRRAs* in the scope of Genre Analysis. I have used corpus tools and Swales' CARS model. First, Wordsmith tools such as word frequency were applied to the corpus for quantitative analysis; secondly, Swales' seminal CARS model and the subsequent tradition of genre studies in spoken and written genres were applied for the rhetorical analysis of 100 *e-RREs* and 100 *e-RRRAs*.

3.4.1 Quantitative Applied Linguistics

For the sake of accuracy, the next steps were followed to characterize *e-RREs* quantitatively:

- Texts were classified into two different groups; namely, *e-RREs*, and *e-RRRAs*
- *E-RRE* HTML Files were converted into text files
- Basic parameters (number of words, number of sentences, elements and absolute frequencies) were estimated making use of
- *Wordsmith tools 6* statistical package (Scott, M. , 2015)
- Relative frequencies (percentages over the total number of words per text and per type) of elements were calculated

3.4.2 Qualitative Applied Linguistics

The definition of move used in this study has been that of Holmes' (1997) as "a segment of text that is shaped and constrained by a specific communicative function". In Paltrige's (1994) rhetorical analysis of environmental texts he poses the following questions:

- What elements must occur?
- What elements can occur?
- How often can elements occur?

These are questions we intend to answer in our analysis of *e-RRs* rhetorical structure. Paltridge also asks a fourth question 'Where can elements occur?'. It was noted observationally that, although moves seemed to follow a reiterated order, strategies seemed to have a completely random order. Hence, we thought this topic deserved another, complete study.

To ensure accuracy and reliability of my qualitative analysis of the rhetorical structure of *e-RREs*; i.e. responses to editorials, the analysis was carried out following the steps below:

- Grouping the e-health debate (editorial plus *e-RRE*) texts for meaningful reading. This provided a careful insight into the e-health debate content.
- Initial scanning of *e-RREs* for identification of purposes. Check up.
- Solid reading of *e-RREs* for identification of information structure. Text segment coding. This was carried out repeatedly as *e-RREs* showed high

levels of embedded rhetoric, and segments of texts seemed to serve multiple purposes.

- Identification of text segments in terms of moves & strategies.
- Registration of occurrence of moves, and strategies in the corpus into an Excel datasheet for the calculation of their absolute frequencies. Only the absence or presence of elements was registered; that is, repetition of moves and strategies was coded 1.
- The Excel datasheet was used to calculate move, strategy relative frequency (percentage over the total number of *e-RREs*).
- Identification of moves and strategies as 'obligatory' or 'optional' 'conventional' elements following Rasmeenin's (2006) classification; obligatory (observed in 100% of the e-RREs), conventional (in 66% to 99%), or optional (in less than 66%).

Similarly, in order to ensure accuracy and reliability of our qualitative analysis of the rhetorical structure of *e-RRRAs*; i.e. responses to research articles the analysis was performed following the steps below:

- Grouping the e-health debate (research article plus *e-RRRA*) texts for meaningful reading. This provided a careful insight into the e-health debate content.
- Initial scanning of *e-RRRAs* for identification of purposes. Check up.
- Solid reading of *e-RRRAs* for identification of information structure. Text segment coding. This was performed repeatedly as *e-RRRAs* seemed to

reveal high levels of embedded rhetoric, and segments of texts seemed to serve multiple purposes.

- Identification of text segments in terms of moves or strategies.
- Registration of occurrence of moves, and strategies in the corpus into an Excel datasheet for the calculation of their absolute frequencies. Only the absence or presence of elements was registered; that is, repetition of moves and strategies was coded 1.
- The Excel datasheet was used to calculate move, strategy relative frequency (percentage over the total number of *e-RRRAs*).
- Identification of moves and strategies as 'obligatory' or 'optional' 'conventional' elements according to Rasmeenin's classification; obligatory (observed in 100% of the e-RRRAs), conventional (in 66% to 99%), or optional (in less than 66%).

Finally, chi square tests have been employed to test our research hypotheses.

3.5 Chapter Summary

In this chapter I have presented a description of the methodology employed to test my hypotheses and answer the questions in this study in the traditions of Quantitative Applied Linguistics and Genre Analysis. Explicit reference has been made to our criteria for the selection of the corpus, the corpora for the quantitative and qualitative studies of *e-RRs*, the software employed in the quantitative study and the procedure for the qualitative analysis. The lists and files of *e-RR* texts have been offered and, finally, the operational research framework has been described.

CHAPTER 4.

QUANTITATIVE RESULTS

4.1 Introduction

This chapter presents the results of the quantitative studies of both *e-RREs* and *e-RRRAs*. The average *e-RR* number elicited by *BMJ* editorials and research articles in our corpus is calculated, followed by the average number of words per *e-RR* type, their average sentence length, and average sentence number. Finally, this chapter includes the results of the analysis of the most frequent words in the corpora of *e-RREs* and *e-RRRAs*.

4.2 A Cross Subgenre Study of Basic Language statistics on *thebmj.com*

4.2.1 Electronic rapid responses elicited by *thebmj.com* genres

This section offers the results of my quantitative study of *e-RRs* elicited by/posted to *thebmj.com* online editorials and research articles from the sample. 242 editorials were identified in the online archive from the website, to which 875 responses were posted. *E-RREs* were posted to 182 editorials (75.206%), and 60 editorials (24.793%) received no response on the part of the *thebmj.com* readership.

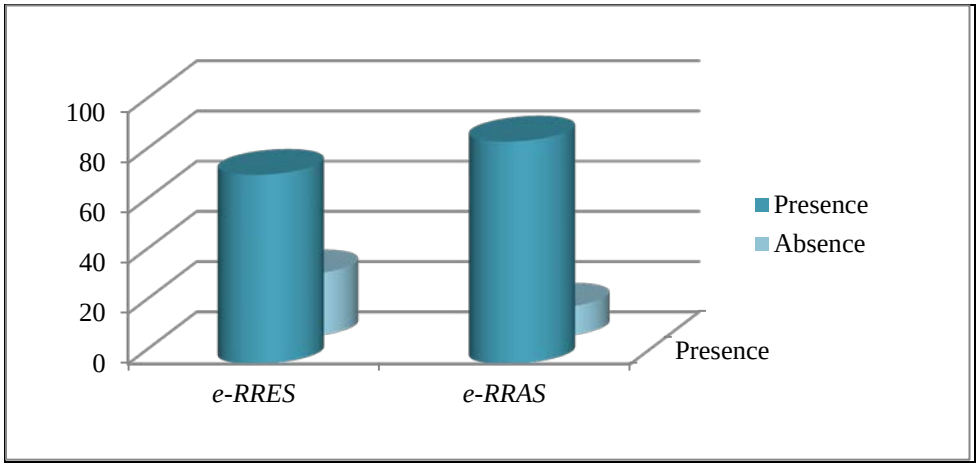


Figure 4.1. Responses elicited by *thebmj.com* editorials and research articles

The high presence of *e-RREs* (f=182;75.206%) may be attributable to the popularity of the *thebmj.com*, the interest of the editorial topics among (groups of) experts, and the high number of people who may acceed the e-journal, as it is open access. There might be a self-selection of e-responders, as not everyone's knowledgement is at the level of expertise of an editorial, and self-exclusion would act as a face-saving strategy. Editorials come first in the table of contents of each *thebmj.com* issue, so readers' attention is driven to them as readers start reading the issue online, so editorials are likely to receive attention and responses as they are a common read among *thebmj.com* readers. The absence of *e-RREs* (f=60;24.793%) may signal implicit approval to both the editorial author's work and that of the board of editors by the *BMJ* readership. This confers validity to the editorial content as it is published and remains uncontested. It may also signal a lack of interest or a majority of readers wishing to remain off-line with respect to editorial contents. The average number of *e-RREs* per editorial was 3,615, and the average number of *e-RREs* per editorial which generated responses was 4,807.

The higher presence of *e-RRRAs* (f=146; 88.485%) may be attributable to the popularity of the e-journal, the interest of the research article topics among (groups of) researchers, and the high number of people who may acceed the e-journal, as a consequence of the journal being open access. The absence of *e-RRRAs* (f=19;11.515%) may signal implicit approval to both the researchers work and that of the board of editors, conferring validity to the research article content as it is published and remains uncontested. The average number of *e-RRRAs* per research article was 5.303, and the average number of *e-RRRAs* per research article which generated responses was 5,993.

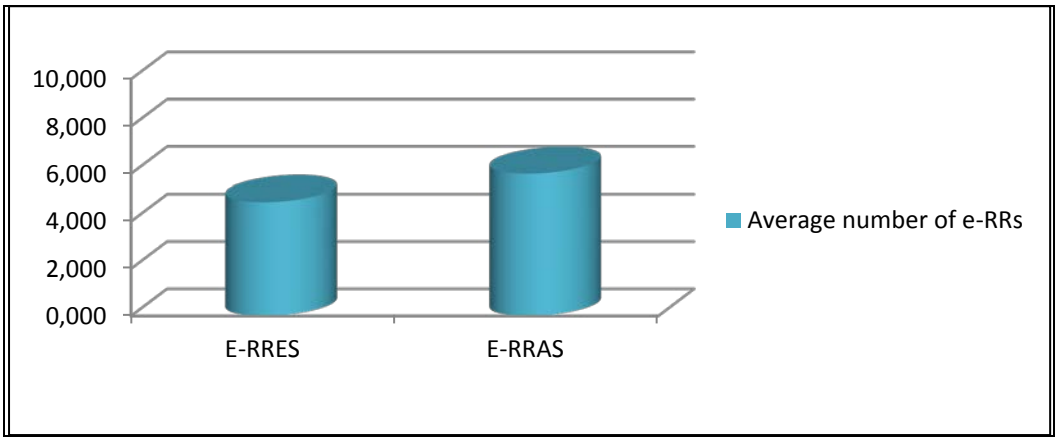


Figure 4.2. Average number of responses per contested editorial and research article

In both cases it is at the readers' discretion to post a rapid response if they feel they have something to say in relation to a particular paper. Remaining off-line for private reasons seems to be conventionally accepted as debates can take place off-line as well.

To sum up, more research articles than editorials received rapid responses, probably because they are a popular read among *thebmj.com* readers and more medical professionals felt they had something relevant to say. Research articles received a higher number of responses than editorials, probably because academic criticism is a common activity among medical professionals, as we shall see in future sections.

As an explanation for these results we might consider that e-Research Articles on *thebmj.com* were read by medical scientists, some of whom reacted and wrote in response to another scientist's piece of scientific work, producing an e-Rapid Response which was posted in the on the *bmj.com*. Whereas e-Editorials, in turn seemed to have been written by acknowledged members of the discourse community, by experts in their field, and many *thebmj.com* readers may have felt

they would not dare to contest the editorial content or to contradict, or say something about an expert's opinion.

4.2.2 Number of Words Per Electronic Rapid Response Type

In this section the length of *e-RRs* in both corpora is estimated. Tokens (running words in text), types, type/token ratio, and *e-RR* average length were calculated for *e-RREs* and *e-RRRAs* using *Worthsmithtools 6*. The results are presented in Table 4.3. below:

***E-RR* Type**	**Tokens**	**Types**	**Type/token ratio**	**Average *e-RR* length**
E-RREs	272,264	15,828	5.970	311.159
E-RRRAs	260,651	13,940	5.530	297.877

Table 4.3. Length of *e-RR* types

E-RR types turned out to be similar in the number of tokens employed in both corpora; approximately 300 words per *e-RR*, although *e-RREs* resulted a bit higher (310.474) than that per *e-RRRAs* (296.675). This seems to imply that the *BMJ* editorial policy referring to the length of *e-RRs* is followed by readers in general terms. The average *e-RR* length was 303.574 words, shorter than other genres (also available online) in the printed medical tradition. On logical grounds, this seems to imply that authors tend to write more, in a more comprehensive and detailed way when producing an article or an editorial, than when reviewing other researcher's work online in the form of e-rapid responses.

The figures for types (*e-RREs*, 15,828; *e-RRRAs*, 13,940) and the type/token ratio indicate slightly higher variation in regard to word range usage in *e-RREs*. This

might be explained looking into *e-RR* contents; *e-RREs* review editorials having a wider focus on research related activities, general knowledge and related topics whereas *e-RRRAs* focus mainly on the review of a single piece of research, creating repetition of research related words.

4.2.3 Sentence Number and Sentence Length in e-Rapid Response types.

As mentioned earlier, sentence number and sentence length for the corpora of *e-RREs* and *e-RRRAs* were calculated making use of *Worthsmithtools 6*. In relation to the number of sentences used in each *e-RR* type, we can see from Table 4.4. below that, as an average, *e-RREs* used more sentences (9.314) than *e-RRRAs* (7.820). The mean sentence length was similar in both corpora, although slightly higher in *e-RREs*.

	Sentences in corpus	**Average sentence number per *e-RR***	**Sentence length (mean)**	**Standard deviation**
e-RREs	10,817	9.314	24.510	14.930
e-RRRAs	10,285	7.820	24.490	13.960

Table 4.4. Sentence number and sentence length per *e-RR* type

The average sentence length of the *e-RREs* and *e-RRRAs* in our corpora was similar to those reported in previous findings –around 25 as reported by Swales (1990, quoting from Bazerman (1988)– and longer than the span found by Piqué-Angordans & Coperías (1999), ranging from 19.68 to 27.06 (SD=12.95) when studying sentence length in health sciences. Also close to the span found by Piqué-Angordans & Andreu Besó (2000) when studying scientific articles in general, which widened from 18.07 to 32.04 (SD:11.95).

4.3 Most frequent words in subcorpora on e-Rapid responses on *thebmj.com*

4.3.1 Most frequent words in e-Rapid Responses to e-Editorials

This section includes the most frequent word forms in the corpus of *e-RREs* as calculated by the *Wordsmith tools 6* programme. The results of this study are shown in Tables 4.5. and 4.6. below:

Nº	WORD	FREQ.	%	Nº	WORD	FREQ.	%
1	THE	14,672	5.389	**26**	PATIENTS	1,009	0.371
2	OF	9,921	3.644	**27**	HEALTH	938	0.345
3	AND	7,564	2.778	**28**	THEIR	932	0.342
4	TO	7,555	2.775	**29**	HAS	908	0.333
5	#	7,104	2.609	**30**	BUT	826	0.303
6	IN	6,614	2.429	**31**	WHICH	810	0.298
7	A	4,867	1.788	**32**	MORE	790	0.290
8	IS	4,273	1.569	**33**	WAS	787	0.289
9	THAT	3,530	1.297	**34**	THEY	784	0.288
10	FOR	2,940	1.080	**35**	AT	761	0.280
11	BE	2,398	0.881	**36**	THERE	744	0.273
12	WITH	2,178	0.800	**37**	BEEN	715	0.263
13	ARE	2,054	0.754	**38**	WILL	695	0.255
14	AS	1,945	0.714	**39**	MEDICAL	690	0.253
15	NOT	1,925	0.707	**40**	SHOULD	689	0.253
16	THIS	1,813	0.666	**41**	CARE	672	0.247
17	IT	1,795	0.659	**42**	ALL	668	0.245
18	ON	1,691	0.621	**43**	CAN	666	0.245
19	BY	1,630	0.599	**44**	THESE	664	0.244
20	HAVE	1,489	0.547	**45**	WOULD	644	0.237
21	WE	1,286	0.472	**46**	WHO	633	0.232
22	OR	1,268	0.466	**47**	MAY	621	0.228
23	I	1,157	0.425	**48**	EVIDENCE	589	0.216
24	AN	1,087	0.399	**49**	ALSO	582	0.214
25	FROM	1,035	0.380	**50**	THAN	568	0.209

Table 4.5. Most Frequent words in *e-RREs* (1-50)

Nº	WORD	FREQ.	%	Nº	WORD	FREQ.	%
51	SUCH	561	0.206	**76**	PEOPLE	359	0.132
52	OTHER	552	0.203	**77**	NEED	357	0.131
53	TREATMENT	548	0.201	**78**	RISK	349	0.128
54	ONE	536	0.197	**79**	BASED	345	0.127
55	IF	524	0.192	**80**	DOCTORS	330	0.121
56	NO	523	0.192	**81**	WELL	319	0.117
57	OUR	499	0.183	**82**	ITS	318	0.117
58	USE	494	0.181	**83**	COULD	308	0.113
59	ABOUT	471	0.173	**84**	IMPORTANT	307	0.113
60	RESEARCH	471	0.173	**85**	VERY	307	0.113
61	S	470	0.173	**86**	TIME	304	0.112
62	WERE	468	0.172	**87**	STUDY	299	0.110
63	CLINICAL	456	0.167	**88**	THOSE	298	0.109
64	WHEN	444	0.163	**89**	OVER	295	0.108
65	ONLY	443	0.163	**90**	BEING	293	0.108
66	SOME	440	0.162	**91**	DRUG	286	0.105
67	EDITORIAL	439	0.161	**92**	EVEN	286	0.105
68	DO	426	0.156	**93**	YEARS	286	0.105
69	MANY	409	0.150	**94**	MY	280	0.103
70	PATIENT	408	0.150	**95**	PRACTICE	279	0.102
71	WHAT	376	0.138	**96**	DRUGS	273	0.100
72	HOWEVER	375	0.138	**97**	HAD	271	0.100
73	ANY	372	0.137	**98**	NEW	266	0.098
74	SO	362	0.133	**99**	OUT	263	0.097
75	MOST	359	0.132	**100**	CHILDREN	258	0.095

Table 4.6. Most Frequent words in *e-RREs* (51-100)

In the subcorpus of *e-RREs* the highest occurrence frequencies were shown by grammatical words such as “the”, “of”, “and” and “to”. The resort to personal pronouns “we” and “I” and the possessive adjective “our” seems to reveal a certain degree of personalization of *e-RREs*, and the e-health debates, probably in the expression of viewpoints, and personal experience or research, for comment on other authors’ work (“they” and “their” were the 34th and 28th runner up words respectively). Words such as “patient/s”(f=1,417) , 21st runner-up word in terms of frequency, “health”, “care”, “treatment”,”medical”, “treatment”, “drug/s”and “clinical” seem to be discipline-based and related to the major foci of interest and

medical areas visited by *e-RRE* authors in the period investigated. The high presence of modal verbs, such as "can", "could", "would" and "should" seem to imply that speculation and advising are operations frequently made by participants in these debates, it also suggests the presence of hedging and both epistemic and deontic modality in the corpus.

The high levels of usage of words such as "research", "study", "evidence" suggests that these are often referred to by *e-RRE* responders for comment, and also as a relatively important basis for reasoning. The presence of words such as "more" and "important" on this list seems to reveal that this list is affected by, and shows *e-RRE* responders' activities of comparison and qualification on its surface. The 67th runner-up position of "editorial" is likely to be accounted for in terms of addressing the e-genre commented. Finally, "children" is likely to be a corpus based effect, a topic often debated over by *e-RRE* responders in our sample from *thebmj.com.*

4.3.2 Most frequent words in e-Rapid Responses to e-Research Articles

This section includes the most frequent words in the corpus of *e-RRRAs* as calculated by the *Wordsmith tools 6* programme.

The highest frequencies in the corpus of *e-RRRAs* were shown by grammatical words such as "the", "of", "to" and "and". Words such as "patients", "health", "care", "treatment", "medical" and "disease" seem to be discipline-based and related to the major foci of interest and medical areas visited by *e-RRRA* authors' in the period investigated.

These are shown in Tables 4.7. and 4.8. below:

№	WORD	FREQ.	%	№	WORD	FREQ.	%
1	THE	14,500	5.563	**26**	FROM	1,087	0.417
2	OF	9,623	3.692	**27**	I	1,009	0.387
3	#	8,745	3.355	**28**	AN	916	0.351
4	TO	6,622	2.541	**29**	WERE	906	0.348
5	AND	6,335	2.430	**30**	THEIR	891	0.342
6	IN	6,326	2.427	**31**	AT	869	0.333
7	A	4,753	1.824	**32**	WOULD	830	0.318
8	IS	3,759	1.442	**33**	MAY	824	0.316
9	THAT	3,567	1.368	**34**	MORE	815	0.313
10	FOR	2,639	1.012	**35**	THEY	748	0.287
11	WITH	2,225	0.854	**36**	RISK	719	0.276
12	BE	2,181	0.837	**37**	BUT	703	0.270
13	THIS	2,124	0.815	**38**	WHICH	700	0.269
14	AS	1,902	0.730	**39**	BEEN	698	0.268
15	NOT	1,855	0.712	**40**	THESE	642	0.246
16	ARE	1,664	0.638	**41**	THERE	629	0.241
17	HAVE	1,615	0.620	**42**	THAN	606	0.232
18	IT	1,595	0.612	**43**	HAS	601	0.231
19	BY	1,541	0.591	**44**	IF	579	0.222
20	ON	1,495	0.574	**45**	WHO	573	0.220
21	OR	1,291	0.495	**46**	ONE	568	0.218
22	STUDY	1,242	0.476	**47**	ET	558	0.214
23	WE	1,202	0.461	**48**	ALL	556	0.213
24	PATIENTS	1,193	0.458	**49**	OUR	546	0.209
25	WAS	1,164	0.447	**50**	SHOULD	546	0.209

Table 4.7. Most frequent tokens in *e-RRRAs* (1-50)

The presence of words such as “study/studies” (17st runner-up word in terms of frequency), “results”, “data”, “research”, “evidence”, “analysis”and “trial” on this list seems to reveal that research activities, research authorship and adequate scientific endeavor are a major concern in *e-RRRAs*. The high usage of “they”, “authors”, “paper” and “our” by *e-RRRA* responders seems to be related to comment activities and the expression of personal viewpoints respectively.

Nº	WORD	FREQ.	%	Nº	WORD	FREQ.	%
51	AL	545	0.209	**76**	ANALYSIS	367	0.141
52	USE	543	0.208	**77**	RESEARCH	363	0.139
53	ALSO	521	0.200	**78**	EVIDENCE	351	0.135
54	SUCH	518	0.199	**79**	WILL	343	0.132
55	NO	500	0.192	**80**	ANY	340	0.130
56	RESULTS	493	0.189	**81**	PATIENT	340	0.130
57	HEALTH	489	0.188	**82**	CLINICAL	339	0.130
58	TREATMENT	488	0.187	**83**	TRIALS	337	0.129
59	ONLY	486	0.186	**84**	PEOPLE	335	0.129
60	AUTHORS	476	0.183	**85**	EFFECT	333	0.128
61	TRIAL	476	0.183	**86**	MORTALITY	331	0.127
62	OTHER	461	0.177	**87**	MEDICAL	330	0.127
63	CAN	453	0.174	**88**	S	329	0.126
64	BETWEEN	433	0.166	**89**	COULD	328	0.126
65	HAD	430	0.165	**90**	DISEASE	323	0.124
66	DATA	419	0.161	**91**	PAPER	322	0.124
67	CARE	418	0.160	**92**	MOST	320	0.123
68	GROUP	416	0.160	**93**	UP	316	0.121
69	HOWEVER	415	0.159	**94**	TIME	312	0.120
70	WHEN	413	0.158	**95**	YEARS	307	0.118
71	STUDIES	402	0.154	**96**	WHAT	300	0.115
72	ABOUT	380	0.146	**97**	SO	293	0.112
73	THOSE	377	0.145	**98**	USED	291	0.112
74	SOME	372	0.143	**99**	MANY	285	0.109
75	DO	371	0.142	**100**	WELL	284	0.109

Table 4.8. Most frequent words in *e-RRRAs* (51-100)

Highly frequent words such as “more” and “well” suggest the realization of activities or comparison and comment on the part of *e-RRRA* responders. And, finally, the presence of modal verbs “would”, “may”, “can”, “could”, “should” and “would” and “will” seems to imply that speculation, indicating possibilities, drawing implications and making predictions are operations frequently made by participants in these e-health debates; and suggests the presence of both deontic and epistemic modality in the corpus.

4.4 Chapter Summary

This chapter has displayed the results of the quantitative studies of both *e-RREs* and *e-RRRAs* using the methodology described in chapter three. The average *e-RR* number elicited by editorials and research articles has first been provided, followed by the average number of words per *e-RR* type, their average sentence length, and average sentence number. Finally, I have outlined the result of the analysis of the most frequent words in the corpora of *e-RREs* and *e-RRRAs*. The following chapter includes the result of our qualitative study of *e-RR* types.

CHAPTER 5.

THE RHETORICAL STRUCTURE OF ELECTRONIC RAPID RESPONSES TO ONLINE *BMJ* EDITORIALS

5.1 Introduction

In this chapter I refer our qualitative analysis of the corpus of 100 e-Rapid Responses to online *BMJ* editorials as examples of expert-to-expert communication; namely, I study their purposes in the post publication online debate and their schematic structure. It has been assumed that e-Rapid Responses are one of the emerging academic e-subgenres the worldwide *BMJ* medical community uses, among other electronic genres. I have also narrowed our scope down to e-Rapid Responses to online editorials. This way the process of inference of regularities would yield a characteristic schematic pattern peculiar to *e-RREs*, and the study would deal with a manageable amount of information.

Following Swales' (1990) approach it is essential to identify the purpose of e-Rapid Responses to online editorials as a medical subgenre. Editorials offer a particular picture of a recent area of development in the field which may include recent initiatives, research, academic literature and different situations among others. The primary purpose of *e-RREs* is to review editorials, which involves the intersection of editorial contents and readers' perspectives through the reading of the editorial and entails the readers' emotional and cognitive reactions to and processing of the editorial information and contents for posting an electronic response. Furthermore, the careful reading of the corpus revealed that expert readers are well aware of the fact that, when posting a rapid response, they are engaging in a worldwide online debate in medicine, and therefore purposes in the post publication online debate were analysed (see Table 5.1. below).

***e-RRE* purpose**	**f**	**%**
Editorial support	66	66%
Opposition	30	30%
Reply/response	4	4 %

Table 5.1. *e-RRE* purpose in the PPORD

The study of the *e-RREs* of our corpus revealed that more responders opted for supporting editorials, and fewer opted for opposing them. Expert readers seemed to be well aware of the fact that medicine is a common, collaborative endeavor and of the fact that they are constructing medical knowledge. That seems to be the reason why they showed support (f=66; 66%) for the editorial adding knowledge to the field, many complementing [26] the editorial with reference to other populations, other medications, other related jobs, other diseases or medical conditions, other facts, cases, tools, procedures, associations as well as implications, or even filling a gap in the editorial. The aim of this is to amplify the basis for reasoning for the online debate, to offer a better, more comprehensive picture of the particular area of development.This also entails an option for not questioning the validity of a published editorial and its contents, which have gone through a peer review and gate-keeping process. These responders opted for supporting an online editorial including in their response the indication of positive effects or benefits of what had been referred to in the editorial, and advantages among others. This may also be a face-saving strategy, the avoidance of open confrontation, which would allow for *laudatios* to editorial authors for reasons out of the reach of the present study; for example, to be on good terms with an expert,

[26] There were seven instances of *e-RRE* authors who complemented the editorial not making explicit their support.

to get easy access to publication, to collaborate in the future, as well as to avoid future criticism of their own papers. Many *e-RRE* responders complemented the editorial scope, making the online picture of the area of development more comprehensive, assumedly for two reasons; firstly because, by adding further information on their home country populations, interpretations or informing the community on recent events and developments in the field. In this way they were contributing to the social construction of knowledge which was taking place on line, something their colleagues might find useful; that is, it served a social purpose; secondly, because it is a way to participate which avoids direct confrontation with an expert, that is, open support.

Opposing the online editorial views was present in 30% of the e-Rapid Responses by *thebmj.com* responders. Their presence signals the acceptance and presence of controversy as part of the construction of medicine as a science. Even though having different opinions is natural in an online debate, I feel that the figure is low for the avoidance of open opposition mentioned above, although the figure mentioned may be a sample-based effect. The observation of table 5.1 above might lead us to think that the locus of the online debate is complemented by other arenas where dialogue and confrontation may take place off-line; namely, through email, at conferences, seminars and private encounters. E-responders probably make a decision about what to make public and what not to be made public. There seems to be an avoidance of open confrontation in public.

Finally, a scarce 4% of editorial authors opted for a response to the online debate, which often served a range of purposes like acknowleging and weighing up other

medical scientists contributions, clarifying viewpoints, or reaching final conclusions. Most left the debate open to further contributions or felt the debate deserved no further response; this might imply that they considered that the e-debate and its contents were enough in themselves, or, alternatively, this might reflect editorial policies or decisions.

As mentioned before, *BMJ* readers intend to communicate their emotional and cognitive reactions to the editorial when responding to it electronically; but, on the other hand, they seem to be well aware of the fact that they participate in the e-debate on medicine and/or medical research engaging in an online worldwide debate at the same time. These might be the reasons why their e-Rapid Responses seemed to serve several purposes in order to respond to different cognitive elements in the communicative situation. This, on the other hand, may also account for the fact that they try to make their positions clear in the e-debate, arguing their contributions carefully and in detail.

The *e-RRE* may be considered a research-related online genre generally addressed to experts –the *BMJ* editorial board and the international readership. It aims at convincing a potentially hostile sceptical readership of a particular and personal view of on an editorial. For an electronic responder who opts for engaging in an e-health debate part of the post-publication review of an editorial, acquiring the prerequisite "situated cognition" (Berkenkotter & Huckin, 1995:3) is essential to be capable of developing their *E-RRE* strategically, and finding their own voice within the online scientific community. Image creation is central. Among the factors e-responders have in mind when choosing among rhetorical strategies

when posting to the e-debate, offering a particular picture of themselves as researchers and scientists seems to be essential. This has also been observed in the RECON model of the spoken genre chairmen's statements in annual reports (Skulstad, A.S.; 1996), the main difference being that, in the latter, the image created is that of a company, rather than an individual. The establishment of "scholarly credibility on the author as a worthy member of the research community" (Yakhontova, 2002, p. 231) may also explain why e-responders argue their *e-RREs* thoroughly sometimes framing their reasoning within the state-of-the art literature of the the subject matter.The purpose of *e-RREs* seems to be not only informative, but also rhetorical in that it aims to persuade the *BMJ* readership of its viewpoints, and that seems to affect the choice of language and rhetorical strategies eventually included in the e-genre.

The relationship of the *e-RRE* writer with the readership is different from that of the RA or the Conference Presentation. In an inner circle you can find the Editorial author and the board of *BMJ* editors; in a wider one you have to be aware of an international readership. The members of the discourse community are well aware of the fact that they are all constructing knowledge and that is a crucial and communal task. Therefore, it is important to know who has commented on what, and what has been stated in relation to what in the community; hence, *e-RRE* authors are identified, as well as editorial authors. This is the reason why, signalling and socially recognising a contribution to the field is often made explicit in *e-RREs*; everyone acknowledges that careful thinking, researching, writing, and above all constious analysis requires time and effort. This is also the reason why *e-RREs* are well argued and statements tend to have

sound support, as no one wishes to be scold for careless inference, easily arrived at opinions, or useless suggestions, among others.The range of purposes revealed in the study of our corpus may well be an effect of the eventual editorial decisions of the *BMJ* –in the sense that *e-RREs* with similar contents were not published, only those adding something to the e-debate.

In editorials, authors seem to offer a particular picture of an area of development in the field in which there seems to be a rhetorical move from the general research context towards specific knowledge claims. A similar funnel effect, or rhetorical narrowing, has also been observed characterizing conference presentations and lecture introductions (Rowley-Jolivet & Carter-Thomas, 2005). In contrast, *e-RREs* seem to be characterized by the opposite, a sometimes reiterated rhetorical move from the particular (claim, gap, experience) to the broader context of the field and by the complementary –from the general to projection of the general into the future.

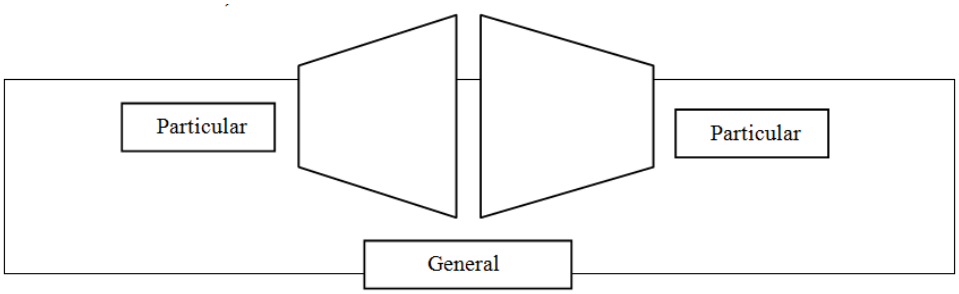


Figure 5.1. Framework for *e-RREs*

In this sense the *e-RRE* author presents a personal view of the online editorial but they often seem to view it in the eyes of the broader medical community. Both online editorials and *e-RREs* seem to act complementarily in leading *thebmj.com* medical community into the future.

5.2 The Rhetorical Structure of Electronic Rapid responses to online *BMJ* editorials

Together with a generic structure, *e-RREs* revealed considerable rhetorical flexibility, due not only to the embedded contexts they emerge in and their response to the *e-RR* electronic forum, the *BMJ* board of editors, the editorial author (s) and the worldwide *BMJ* readership, but also to the specific selection of editorial subject matters they madefor review, and their nature. Genre flexibility is related to disciplinary variation and the evolving requirements and practices of a particular discourse community (Askehave & Swales, 2001; Anthony, 1999).

Thus, one of the main objectives of this research is to display a synchronic corpus-driven journal based view of the rhetorical structure of this e-subgenre in the field of medicine. The study has yielded a letter-like generic structure with certain variations, as well as a complex and embedded rhetorical structure which reflects the practices and the oral and written contexts of the medical discourse community. Figure 5.2. illustrates the conceptual distinction between generic structure and rhetorical structure of *e-RREs* as obtained in this research.

Using the genre analysis analytical framework the *e-RREs* in our corpus have been subjected to textual analysis to identify their rhetorical structure (see Appendix 5.1.).

Text [*e-RRE* 005] Generic Structure		Rhetorical structure
The Importance of Pupillary Dilatation in Ophthalmoscopy	Title	Title
	Opening	Salutation
The article by Gerald Liew et al was very appealing as it highlights the importance of dilated ophthalmoscopy in medicine. I agree with the authors that the risk of precipitating an attack of angle-closure glaucoma by dilating the pupils is minimal. A dilated fundus examination is indicated and is helpful in the diagnosis of conditions like diabeticretinopathy, hypertensive retinopathy, papilloedema, cataract and eyetrauma. It is a skill that proves to be invaluable for physicians, general practitioners, surgeons, Accident and Emergency (A&E) staff and ophthalmologists alike. It is especially important for A&E doctors to be familiar with performance of ophthalmologic procedures for evaluation and treatment of a number of eye problems [1]. The ocular fundus allows a simple and non invasive visualisation of the terminal vascular system [2]. This is especially important in the examination of patients with diabetes mellitus and hypertension. Ophthalmoscopy can indicate in these conditions the vascular state in the other organs and permits direct diagnostic, prognostic and therapeutic choices. Dilated fundoscopy can improve the visualisation of fundus details, especially if the view is hazy due to a cataract or corneal opacities. It can also help pick up subtle abnormalities like early optic disc swelling. Various studies have indicated the benefits of dilated fundoscopy. Pollack et al found that the rate of detection through routine dilated fundus examination of clinically significant fundus lesions in asymptomatic patients at 2.73% [3]. Siegel et al conducted a study involving 500 adults, in which the fundus was examined with both natural and dilated pupils [4]. 38% of posterior pole anomalies requiring significant action by the doctor were missed during the natural pupil examination. Moreover 287 peripheral retinal anomalies were picked up in the dilated pupil examination. These results suggest that pupil dilatation should be strongly considered in all patients to increase the probability of detecting fundus abnormalities.	Body	Social acknowledgement/focus Agreement Background knowledge Positive effects/benefits Evidence Evidence Positive effect/Benefit Positive effect/Benefit Positive effect/Benefit Evidence Evidence Negative effect Positive effect Conclusion
I hope doctors from all specialities will be encouraged to perform more dilated ophthalmoscopy in the future.		Call for change (hope)
	Closure	Polite ending (online Sign-off)

Figure 5.2. Generic structure and rhetorical structure of a sample *e-RRE*.

The presence of an online readership who can eventually engage in online written dialogue and/or open confrontation with the e-responder explains why acknowledgement of the role and contribution of these participants is frequently

carried out directly or in the form of explicit citations. This interactional dimension has also been observed to characterize written and spoken genres (e.g. G. Thompson 2001; Hyland 1999). In these, awareness of readership, or audience, and the construction by writers of a reader-in-the-text is an important feature of persuasion.

In *e-RREs* rhetorical letter-to-the editor moves and strategies in seem to be carefully selected as a way of establishing the *e-RRE* writer's *persona* (Campbell 1975:394). In other words, the created personality which is suggested –moved to the forefront– in the act of communicating on *thebmj.com* post publication online review debate (PPORD). This way of establishing the *e-RRE* writer's *persona* seems to be present through the progression of strategies in the *e-RRE*. Salutating the editors may be viewed by readership as a correct –rather protocolized– move. Initially signalling and welcoming editorial contributions may have similar functions. Developing an accurate and careful argumentation may also be intended for this purpose; and ending the document politely may be viewed as a correct, protocolized, move.

E-RRE strategies in this study have been classified according to their frequency of appearance in the sample as obligatory (100%), conventional (between 66% and 99%) and optional (inferior to 66%). Table 5.2.summarizes the results of this research.

As can be seen from the data, *e-RRE* writers tended to use an *ad hoc* selection of strategies when building their online argumentation which originated in the

common activities these authors engage in when acting as medical professionals in their practice and in oral and written contexts.

***E-RRE* structure (strategies)**			
Strategy	**f**	**%**	**Classification**
Title	100	100%	Obligatory
Salutation	27	27%	Optional
Social acknowledgment/ focus	74	74%	Conventional
Agreement	23	23%	Optional
Background knowledge	53	53%	Optional
Evidence	44	44%	Optional
Criticism	22	22%	Optional
Indication of effects	45	45%	Optional
Words of caution	11	11%	Optional
Indication of problem	53	53%	Optional
Indication of solution	33	33%	Optional
Question raising	24	24%	Optional
Question answering	10	10%	Optional
Clinical practice	8	8%	Optional
Call for change	65	65%	Optional
Situation	49	49%	Optional
Counterclaiming	8	8%	Optional
Own experience	20	20%	Optional
Case report/reference	3	3%	Optional
Indicating a gap	23	23%	Optional
Clarification	12	12%	Optional
Own research	10	10%	Optional
conclusion	39	39%	Optional
interpretation	5	5%	Optional
Implications	5	5%	Optional
Polite ending	4	4%	Optional

Table 5.2. Strategies in *e-RREs*

5.2.1 Title

The data gathered in this study showed that all *e-RREs* included a title, the distinctive name of the *e-RRE* work. Titles in *e-RREs* tended to summarize the main contents of the *e-RR* (f=69;69%) or opted for the main argument they argued for in the PPORD debate (f=27;27%); authors' responses were identified as such.

[*e-RRE*015] Turning around NHS deficits.

[*e-RRE*024] Harmful impact of EU clinical trials directive.

[*e-RRE*030] Increasing the number of medical students from under-represented minorities – don't forget the cost of university.

[*e-RRE*035] Glucose control reduces morbidity and costs.

Titles served the purpose of informing the reader about the main contents of the *e-RRE,* or the authors' position in the post publication online debate. In the online debate context, editorial readers seemed to be extremely fickle. That is, of those who read the editorial, only some would read the rapid response section, and among these only some would read the responses to a particular editorial –which is specially important if the reader is to post a response. Therefore, the *e-RRE* title might function as a general descriptive heading which might help the reader decide whether to read a particular e-response or not. The *BMJ* interface of an online editorial provides information on which editorials have received responses, and which have not. This may help inform *thebmj.com* readers on which editorials have been contested, elicited controversy or raised interest at a worldwide level. On the other hand, a look at the titles on the response page can help the reader gather a general idea of the directions of a particular PPORD.

5.2.2 Opening

The opening is the initial part or stage of the *e-RRE*, which was realized by the salutation strategy in which the e-responder commences the *e-RRE* as he or she enters the virtual arena of the *BMJ* PPORD. It consists of a salutation to the editor of the *BMJ* e-journal, or board of editors. It serves the purpose of addressing the editors, identifying those to whom the contents of the *e-RR* are addressed

primarily, it may also invest the *e-RR* with more politeness. The traditional norm indicates that politeness must rule exchanges between the expert members of the particular medical discourse community, as high-ranked professionals invested with social power. They are responsible for the publication of the related e-paper, that is, for the maintenance of academic standards when publishing. More than anything else, they hold the power of deciding whether to publish a particular e-paper or not, that is to say, they are gate-keepers. Opening is a letter-like move, whose presence supports the idea that *e-RREs* are online subgenres that stem from the epistolary tradition which has characterized medicine since the sixteenth century.

The data yielded by this research showed that only 27% (f=27) of *e-RRE* authors employed a salutation strategy in their responses; that is, most *e-RRE* responders (73%;f=73) skipped this strategy probably because the rapid response fora suggested a certain degree of informality. The term *rapid* response as eliciting a rather spontaneous response may account for this fact. The excerpt below illustrates a typical e-Rapid Response without an opening:

> Ham is right to be sceptical about the private turnaround teams1.Personal experience with "franchising", a similar process, has led me to asimilar position2. There are 3 main reasons why faith in their abilities is misplaced.
>
> Firstly the private sector under-estimate the wider responsibilities of hospitals. Unlike the private sector, public institutions are not free to simply disinvest in non-profitable areas. Accountabilities run wider than just the organisation itself, into the wider local community. Also the demands of transparency and the burden of governance are more stringent. Secondly the private sector does not genuinely comprehend the complexity of medical care. Like chaos theory, one small action within the organisation can have a myriad of unforeseen consequences for the wholesystem.

> Thirdly, there are major structural problems with NHS finances and organisation. Resources are not distributed with equanimity at the national and health authority level. Only selfless political leadership will resolve these problems. Ham is right to point out that the solution lies with the full engagementof clinical teams. However the Department will have to rebuild confidence in clinicians and managers. It may be unpalatable to hear, but after years of being blamed for the failure of the NHS, managers and clinicians at the front line have distaste for all things central. It is time to stop trying to remodel the NHS in the mould of the private sector, take stock of the successes over the last 60 years and reaffirm its founding principles. Then the experience of the NHS workforce should be brought to bear on the problems of the NHS. Local teams must be allowed to take risks and politicians should have the courage to support them, even in the face of opposition from the public and vested interest groups.
>
> [*e-RRE*007] Deficits not for turning

Although infrequent, some e-Rapid Response authors opted for addressing the *BMJ* editor or editorial board, in a letter-like move. Among the most common openings there are examples such as *Editor, To the editor, Dear Sir/Madam, Dear Sir* and *Dear Editors* were found. This seems to imply that the communicative situation of writing an e-Rapid Response online has features in common with that of writing a letter-to-the editor to a printed journal. An e-Rapid Response author is not only posting a response to an Editorial author's work, these authors also seem to be well aware of the *BMJ* editorial board and the worldwide *thebmj.com* readership, professionals, researchers and patients in the field of medicine. Addressing the editor, therefore, seems to be an optional rather protocolized strategy in a written contribution providing a review on a written genre which most responders opted for skipping. The opening move found in *e-RREs* has also been found in epistolary genres (Henry, A & R.L Roseberry, 2001). It is a rather

protocolized move, which serves the purpose of addressing the editor, and secondarily, the e-reader.

5.2.3 Body

In a peer-reviewed journal such as the *BMJ*, peers can evaluate other colleagues' work online professionally; in other words, they may appraise editorials critically. The review of an editorial implies the evaluation by fellow specialists of a state-of-the-art article. Specialists, who have read the editorial so as to be updated in a particular area of research, have verified it, checked its contents and assertions, assessed its suitability for publication, and commented for further development, that is, in fact, to extend the online PPORD debate.

The *body* of the *e-RRE* consists in the written expression of the review a *BMJ* reader has made of a particular editorial. It involves a serious examination and judgement of the editorial which may entail a critical review or commentary, a critique, a critical discussion of a particular aspect in the editorial. Its aim is to help accommodate the piece of work (editorial) into the field by the identification by the e-responder of those aspects which should/should not to be included in the field, or by focusing on certain aspects of the editorial. BMJ e-responders read through editorials with a critical eye, others accept the validity of the editorial contents and develop the editorial arguments and foci further.

Contributions seem to follow Grice's maxims [27] of relevance and truth of exchanges (1975) both as a norm and as a result of an editorial policy. Throughout

[2727] Grice's (1975) insight into conversational exchanges considers them cooperative efforts, ruled by the cooperative principle, in which four categories are distinguished. Under the category of Relation

the body of the *e-RRE* the e-responder might express a course of reasoning aimed at demonstrating the truth or falsehood of a particular statement. In this course of reasoning facts or statements may be put forth as proof or evidence. Sometimes the *body* of the *e-RRE* consists of a set of statements in which one followed logically as a conclusion of the others. The *body* stresses the facts and reasons intended to persuade the other sides of the e-debate. It might involve discussion of conflicting points of view in medical research and practice.

E-RREs were most likely to include some sort of quality argumentation. It included for instance background knowledge, the indication of editorial content effects (either positive or negative) for support or opposition, question raising and situations, problems and solutions. Some other options included the reference to the medical professional's own experience and/or research.

The *body* serves the purpose of communicating to the online community how one of its individual members accommodate the editorial content in his or her cognitive or operational model, the way he or she processes the information establishing relationships with other actors in medical contexts, his or her own experience, relevant literature or initiatives, among others, and also how it predicts either positive or negative effects of editorial assertions and contents. *E-RRE* responders judge editorial assertions, views, and concepts in terms of their significance, validity and generizability, especially to other contexts, strengths and weaknesses. Responders often indicate the relevance of other scientists' work,

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he places a single maxim, namely, '*be relevant*.' Under the category of quality falls a supermaxim '*try to make your contribution one that is true'*; and two more specific maxims: (1. *Do not say what you believe to be false*, 2. *Do not say that for which you lack adequate evidence*)

rather than their own, and also the significance of thoughts, inferences, suggestions, procedures and contributions, among others, within the scope of the PPORD. Distinctively, *e-RRE* responders indicate positive and negative impact, effects, advantages and disadvantages, suggestions, proposals, measures, hypotheses, inferences, assertions, procedures that may eventually be included in the e-debate. All these strategies help the purpose of establishing the meaning and significance of the aspects that are progressively brought into the debate.

5.2.3.1 Social Acknowledgment/Focus

*The social acknowlegement/focus*strategy in *e-RREs* entails the recognition of another medical scientist's work in the form of an editorial and the admission of its existence in the medical field, as a response to the peer's contribution. This strategy might involve a token of appreciation or an expression of thanks and imply the recognition of the validity and the truth of their contribution or the authority of the particular medical scientist, or group of researchers; although it at times only consists of a reference to the work of a particular scientist for further consideration or criticism.

The social purpose of this conventional strategy is the admission of other scientists' work, signalling its acceptance or refusal by the recognition of the fact that it has contributed to the medical field, called the attention of, and, therefore, deserved comment from another member of the medical discourse community. The norm seeming to be governing these interactions is that, as medical science is a common endeavour, a task of constructing a science as a group, medical scientists must read other researchers' contributions to be aware of the new

developments in the field, to be updated on improvement in health and medical practice. Hence, the responsibility of accepting new knowledge within medical science lies not only in the researcher and *thebmj.com* journal board of editors, as other members of the discourse community also have a say. They may check and verify that the principles of the scientific method are followed closely, that there are no alternative explanations for the results or that the account is precise and comprehensive. This is a social process in which some participants observe aspects or details overlooked by others, thus complementing one another. Not responding may also be considered acceptable behaviour, it may signal implicit acceptance of the validity of the editorial contents, and of the editorial decision of publishing it, as it is. *The social acknowledgement* strategy sometimes helps the purpose of showing that a particular editorial idea or contribution is relevant, important, or critical; serving the purpose of a positioning of the *e-RRE* contribution in the broader PPORD.

Although some e-Rapid Response authors chose one of the following options, showing their emotional reaction to the editorial, qualifying the editorial, or indicating their contribution separately, quite a few e-Rapid Responses reveal several degrees of embedded rhetoric in this *social acknowledgment*. Most e-Rapid Responses to editorials include an initial *social acknowledgment/Focus*[28] strategy (f=74;74%), which may be conceptualized as the expression of explicit credit or reference to the new contribution to the medical field, and by doing so

[28] We have opted for *Social Acknowledgement*, rather than the epistolary *Introduction*, to emphasize the social aspect of *e-RRs* in virtual fora and the ongoing construction of knowledge. Introductions may offer a personal overview of the author's main point and how it is supported, results, how the conclusion was reached, and so on.

acknowledge its existence. This strategy is often realized through a combination of elements; namely, recalling editorial contribution to the medical field, including a reference to what editorial authors have done, focusing on selected aspects, showing emotional responses to the online editorial, qualifying the editorial, congratulating editorial authors and thanking them for their contribution. The realization of these elements in combination within the initial *social acknowledgement strategy* in *e-RREs*, is illustrated in the passages which follow:

> *[e-RRE005] The article by Gerald Liew et al was very* ***appealing*** *as* ***it highlights the importance of dilated ophthalmoscopy in medicine****.[…]*
>
> *[e-RRE041] It is very* ***disappointing*** *that, once again,* ***a BMJ editorial is perpetuating the myth that 15% of people suffering from depression will eventually commit suicide****.1 […]*
>
> *[e-RRE087] I am* ***greatly concerned*** *by the tone of this editorial and* ***the assertion that Restless Legs Syndrome"Is treatable but under-recognised"****. In over ten years of full time General Practice I can think of no occasion were patients presented with insomnia caused by "restless syndrome" as described in this article. […]*
>
> *[e-RRE098] Spencer et al* ***rightly*** *emphasise* ***'the need for obstetricians to maintain and develop their skills of vaginal delivery when complications arise in labour'*** *(1) […]*

The social acknowledgment strategy in *e-RREs* had several aims. First, it has a social function as it helps and/or welcomes the accommodation of the editorial authors in the online public sphere and/or discourse community and the new editorial contribution to the medical field. Second, it serves the purpose of establishing the meaning and significance of the editorial in relation to the discipline, moving from the particular to the general. Third, it helps potential readers decide whether the particular *e-RRE* is worth reading –together with the *e-*

RRE title. Finally, it helps the identification of the aspects on which analysis and commentaries are to be made in the *e-RRE*, helping prepare the audience to receive the message or claims conveyed in the *e-RRE*.

In the particular context of this thesis, I have opted for the term "social acknowledgment" to distinguish it from the "acknowledgements" sections in books and dissertations, which constitute expressions of gratitude for the assistance in the creation of an original piece of research; indicating that the person did not have a direct hand in producing the work in question but, rather, may have contributed encouragement or criticism to the authors. "*Focus*" has also been used because the *e-RRE* responder carries out a selection of the aspect/s in the editorial which have called their attention, and on which they are going to comment, and make explicit reference to the worldwide online debate.

The **indication of editorial contribution** consisted in identifying and including in the *e-RRE* one of the main relevant aspects of a particular editorial. In other words one containing research printed in the editorial or the editorial itself which has contributed to the medical field, added new knowledge (RAs) or presented an aid (editorials) to the medical community. It signals the contribution by stating it in the *e-RRE*, through which it is marked out in the online context of *thebmj.com* and thus acts as a reminder of this contribution to other scientists. The norm which seems to be followed in this strategic element is that other scientists' useful contributions to medical disciplinary knowledge must be acknowledged. The following example illustrates the advocacy for fundoscopy in a *BMJ* medical editorial:

> *[e-RRE001] Liew et al highlight the very small risks associated with precipitating an attack of angle closure glaucoma when dilating a pupil for the purposes of fundoscopy.[…]*

Showing emotional reaction to an editorial consisted in the communication on the part of the e-responder of the affective mental state the particular publication of an editorial has elicited in the writer. It involves the affective state of consciousness in which feelings were experienced, those of joy, sorrow, fear. In the context of the online *BMJ* it does not seem to be triggered directly, but, rather, seems to require elaboration on the part of the reader, who, as they read an editorial might develop thoughts and feelings, some of which could eventually be communicated online. On the part of the editorial reader, there is also the possibility of comparing the information provided in the editorial against the community's background knowledge to then identify the role played by the editorial in its context. This could also elicit thoughts and feelings which, again could be communicated online. E-responders, as authors, may be following the norm that one of the options available on the part of the community when new editorials are published is that of communicating a response, the initial emotional response elicited by the editorial, indicating or revealing the community members'reaction, how a researcher has received the editorial, that is, with positive emotions, welcoming it, or negative emotions, rejecting it. This also indicates whether the new knowledge or aid provided by the editorial will eventually be accepted and accommodated into the disciplinary knowledge, or disregarded or rejected. Hence, it serves as an indication, to the editorial author and the medical community, of the initial reactions which may eventually signal approval or disapproval of his/her editorial or editorial contents, in the context of

the *e-RRE*. The following excerpt illustrates positive emotions signalling social approval of editorial contents:

> *[e-RRE082] I was **very pleased** to read Campion et al (2006) as the first article I found that considers the issues of smoking cessation, long-term hospitalization and the Mental Health Act.*

This strategy moves from the particular (editorial content) to the particular (*e-RRE* author) and it is usually embedded. The aim of this strategy is to reveal to the community how one of its members has received the e-Editorial content emotionally. It exemplifies and indicates clearly the deepest accommodation of the new editorial content in the medical field.

Focusing on selected passage, idea, contribution or event consists in the indication on the part of the e-responder of the centre of interest –in the editorial which has called his/her attention, and which his/her commenting activity is going to draw on. In the varied online *BMJ* context it aimed at isolating and marking out the aspect, or aspects, which were going to be commented on in the *e-RRE*, that is to say, the purpose of highlighting it against the varied rich online background. The norm which seems to apply here is *clarity*[29](Grice, 1975), to identify clearly, and distinctively what is going to be commented upon. The following excerpt illustrates the focus on contribution in an *e-RRE*:

> *[e-RRE034] In their editorial on strict glucose control in the critically ill [1], the authors noted that Van den Berghe et al had been unable to **show a reduction in mortality due to tight glycaemic control in patients admitted to a medical ICU [2], that they had***

[29] Grice's (1975) maxim of *clarity* falls within the category of manner, and it states "avoid ambiguity"

> ***previously demonstrated in critically ill surgical patients*** *[3]. […]*

Focusing on selected passage, idea or statement shows the *e-RRE* author's objective of appropriating the topic, marking a clear break with all the online background content and foregrounding the subsequent *e-RRE* development.

Qualifying an editorial or editorial passage consists in the communication on the part of the e-responder of the attribution of a quality to the editorial or a passage. The e-responder communicates what the publication of an e-paper has elicited in him or her, cognitively and how s/he had elaborated on it. Namely, it requires elaboration on the part of the reader, who, as they read an e-paper could compare it against their background knowledge and make judgments, some of which can eventually be communicated online. This serves the indication to the editorial author and the medical community of the cognitive reactions, expressed in the form of qualification, which may eventually signal approval or disapproval of his/her editorial or editorial contents.

> *[e-RR018] Ham is* ***right*** *to be sceptical about the private turnaround teams 1. Personal experience with "franchising", a similar process, has led me to a similar position2.[…]*

The aim of this strategy is to reveal to the community how one of its members judged the e-Editorial content. It reveals the processing of editorial information – and comparison against standards– by one of the medical online discourse community members and indicates clearly the accommodation of the new editorial content in their particular cognitive construction or medical practice entailing subjective evaluation or appraisal.

Congratulating editorial authors consisted in the e-responder's expression of praise to the editorial and editorial author. *Congratulating* helps the purpose of signalling approval. E-Responders, as authors, may be following the norm that one of the options available on the part of the community when new editorials are published is that of complimenting the editorial author considering the editorial praise worthy; hence, revealing the community members'positive reaction. The following example illustrates how congratulating editorial authors on their contribution may signal social approval:

> *[e-RRE009] We **congratulate** Liew and colleagues on emphasizing the importance of mydriasis for adequate fundoscopy and the minimal risk of inducing angle closure with dilation (1).[…]*

Thanking editorial authors for their contribution consists in the expression of gratitude to the editorial author for providing the community with a useful aid. It involved the expression of credit. *Thanking editorial authors* serves the purpose of signalling approval to the editorial contribution to the medical field. The following excerpt illustrates gratefulness to a contribution in an *e-RRE*:

> *[e-RRE089] I would like to **thank** the authors for an excellent editorial. I suffer from very mild restless leg syndrome but I have noticed that it worsens significantly when I try to sleep during a flight. […]*

This expression of gratefulness is one of the alternatives available to acknowledge editorial authors socially. The thanking and congratulating strategy options could be said to be similar to *Setting up the framework-Interpersonal framework-Listener orientation step* in the spoken genre of conference presentation introductions. In *Setting up the framework* it is a way to socially recognise the

researcher's contribution to the field, and in conference presentation introduction it is one of the alternative ways to make contact and establish a good rapport with the audience. Although thanking may occur at any point in the talk or *e-RRE*, it is particularly marked in an initial position in these genres. Both of these strategy forms, however are ways to create the contributer's *persona* for the spoken or written contribution which follows the discussion and debate.

The Social acknowledgment strategy is a prominent feature of *e-RREs* as a medical subgenre with an interactional dimension in that the author is aware of a live online readership who can eventually engage in direct online interaction with the author during the post-publication debate which follows the publication of an editorial. Many *e-RRE* authors feel the need to explicitly acknowledge the new contribution made to the medical field by editorial writers, when commencing their *e-RRE*. This is quite overt in the textual surface of the *e-RRE,* and reference to the *e-RRE* context is targeted in its realisation.

The virtual "forum" (Porter, 1992) of a particular post publication debate creates a particular type of intertextuality, that of participants' shared knowledge of the related research articles, editorials and citations in the virtual network area specific to that area of knowledge all of which form what could be called a local epistemology. This contextualisation arena is frequently referred to by participants in the form of explicit statements, comments or citations. A major socially acknowledged function of *e-RREs* is to help the contextualization of the *e-RRE* in the broader internet framework of electronic contributions in medicine. This purpose is also achieved in the development of the *e-RRE,* with the aid of

recognizance of other authors' ideas, inner references and explicit citations. Reference is made to the original online editorial, which frequently appears in the reference section; reference is also made to other related original articles, in the same or other journals, which frequently appear as citations. Moreover, reference is also made to other letters in the PPORD, to other editorials on similar medical fields, as well as to related events in the scientific field, such as conferences, seminars. Institutional reports and other scientific papers in the subject matter are also referred to. The online *BMJ* also provides further framing on the online editorial cover, by the provision of links to other similar articles, or articles on the same health or research topic.

The release of a new online editorial with reference to other documents and the subsequent PPORD provide a local epistemology which creates an online micro-context where accommodation of new knowledge is observed by the community. PPORDs hence reveal themselves as important fora for professional interaction and common action –one of helping the community identify its mistakes, correct its inferences and deductions or reasoning, spot problems and solutions, set common goals, or challenge the virtual community among others.

What editorial readers wish to read is the latest community developments and interpretations and options advocated for in a particular area of knowledge or practice. A medical editorial can offer an updated picture of a specific area with the latest developments and the latest conclusions regarding a particular topic in the medical field. This may change the community's way of thinking or viewpoint on the topic. Medical editorials can also advocate for action or for a change in

action. In both cases editorials may imply changes in the medical community's way of thinking and/or actions. Editorials have news value and provide updated knowledge. *E-RREs* review the editorial writers' ways of thinking and complement their action by identifying further common problems to be solved, the challenges the community may face, and by indicating the pros and cons of procedures or decisions advocated to help in decision-making by the medical community.

E-RRE authors attempt to make their *e-RRE* fit into the online debate, they seem to be well aware of the online social context they are contributing to, and sometimes follow social protocolised steps like salutating the online readership, or socially acknowledging some authors' contribution, before proceeding to reveal their viewpoint. When this is done, frequent reference to extensive knowledge shared by peers is made together with references to authors' works, as a means to recall accepted knowledge in their field on which the e-responder may base their reasoning.

5.2.3.2 Showing agreement or disagreement

A closer look at the *e-RREs* in this study reveals that *BMJ* e-responders express their agreement or disagreement with the arguments put forth in particular editorials as a strategy. That is, they express accord, harmony of opinion, or disaccord. The purpose of this strategy is social in that it seems to indicate the expression of approval or disapproval with regard to particular ideas presented in the editorial, that is, social support, by the editorial writer, thus helping the incorporation of the knowledge presented in the editorial into the medical field.

In our corpus of *e-RREs*, only some made indication of agreement with editorial authors (f=22; 22%), and explicit disagreement with editorial authors is almost negligible (f=1;1%). This is illustrated in the e-Rapid response excerpts below.

> *[e-RRE032]* ***I*** *read with interest the editorial […] and* ***could not agree any more with their views that*** *in the current system of surgical training in the United Kingdom, there is progressively decreasing exposure of the surgical trainees to the management of trauma patients […]*
>
> *[e-RRE092] I fully support any efforts to reduce the Caesarean Section rate and* ***I agree that*** *attention should be directed to Caesarean delivery in the first pregnancy which greatly influences the rates in any subsequent pregnancy. […]*

This optional strategy seems to imply that authors tend to avoid explicit agreement or disagreement with editorial contents in the event of online debate after the publication of an editorial –in any case, agreement seems to have been favoured. Quite often an initial agreement is part of a two-part rhetorical structure in which, after agreeing with the editorial author– hence recognizing his or her contribution– the e-Rapid Response author moves on to present his or her review of the editorial, objections and/or refutal.

Showing agreement or disagreement helps the purpose of revealing and making it explicit to the community that the *e-RRE* responder shares ideas which are the same as –or opposed to– those stated in the editorial. Eventually, agreeing contributes to establishing an idea as acceptable knowledge by the community, or a procedure or methodological step as best practice or deemed to be the most correct by the international medical community. Disagreement creates a dilemma which may eventually lead to a discussion or evolve into a debate with the

purpose of deciding whether an assertion or claim can be considered acceptable or not acceptable knowledge or best medical practice by the medical online community, signalling controversy. A higher presence of agreement may act as a face saving strategy.

5.2.3.3 Reference to medical background knowledge

Some *BMJ* e-responders include *medical background knowledge* for inference or comment in their *e-RRE* as an optional strategy, that is, *background knowledge* serves as a basis for reasoning. E-responders include a selection of ideas they held and/or considered relevant or valid, accepted knowledge, by the international medical community, sometimes specifying the source (citation). The *reference to medical background knowledge* serves the purpose of presenting knowledge which serves as the grounds for further interpretations, argumentation or conclusions, which could support editorial claims and assertions, contradict them or add new knowledge to the subject matter. *E-RRE* writers reveal that, from existing knowledge, their inferences can be made and, eventually be also accepted as valid knowledge in the medical field. The result is a different allocation of responsibility of the claims which are more likely to be accepted if they are developed from already accepted scientific/medical knowledge, rather than seen in isolation or as production of a single individual. The relevant norm here is that the process of making inferences from accepted knowledge is an accepted one, which can be socially challenged by research, as part of the scienfic method and at the e-responder's discretion.

The reference to *medical background knowledge* is present in 53% of the *e-RREs* in our corpus (f=63). As in the example below, it may include widely accepted knowledge in the medical field, stating current, uncontested, knowledge shared by the wide international medical community.

> *[e-RRE054] As a medical anthropologist I would like to mention the phenomenon of medical pluralism. Worldwide we can observe the use of different forms of healthcare. These include biomedicine as well as a multitude of medical and therapeutic healing cultures, which have been defined as complementary, alternative or non-conventional in the industrialised countries and as traditional in the developing countries [...]*

E-RREs include background medical information with further argumentative purposes. This strategy has been found in printed medical letters to the editor (Vazquez, 2005). Also, referring to general shared knowledge it may also serve a contextualizing second purpose, that of placing or situating an *e-RRE* argument and thus the main contribution of an *e-RRE* in the context of the particular, post-publication e-debate, as well as in the wider context of the medical field knowledge shared by the *BMJ* readership. A similar contextualization strategy has been observed in spoken genres such as conference presentations (Rowley-Jolivet, 2005:55) and lecture introductions (Thompson, 2001).

In addition, each individual *e-RRE* usually forms part of a series, either previous *e-RREs* posted to the *e-RRE* link/forum, and of a network of e-genres whose authors jointly develop or extend a subject matter which *background knowledge* helps develop. And, sometimes reference is made to these frameworks in the form of reference to other *e-RREs* or related e-genres. Background knowledge has also been observed in the introductions of master thesis across disciplines (Samraj,

2008), in move 3, preceding the presentation of hyphotheses. In *e-RREs background knowledge* may also be intended for foregrounding arguments and claims on the part of the e-responder.

5.2.3.4 Indication of editorial content effects

Several *BMJ* e-responders include the impact or effect the assertions or suggestions made in the editorial could have in the medical knowledge held by the medical community and/or in medical practice (f=45;45%). The editorial contents appear as a cause or agent which could produce an outcome or consequence; that is to say, editorial assertions or contents could entail, produce something, or have something as a result. Effects might be negative (shortcomings) or positive (benefits), and might, therefore, act either in opposition or support of the editorial. The accepted convention here seems to be that, after the publication of an editorial, e-responders can, discretionally, speculate on the editorial content effects, being cautious about the editorial contents, before its contents are fully considered accepted knowledge. The purpose of this optional strategy is to foresee the impact the acceptance of editorial assertions can have in the medical field and medical practice. This helps social purposes such as the fostering of acceptance of editorial contents or their rejection. The argumentation of e-Rapid Responses usually include the indication of effects of some editorial ideas, contents, and initiatives, among others.

> *[e-RRE082] Overall the programm was running very well and staff felt valued and useful in their caring role to ensure the overall health and wellbeing of this population. […]*

Positive effects refer back to events or initiatives recalled by an editorial author, procedures advocated for in an editorial, editorial aspects or activities, editorial suggestions or experiences and alternative procedures and/or occurrences. The indication of positive effects or consequences serves the purpose of arguing for the acceptance of the particular event, procedure, or activity. It reveals support.

[e-RRE066] Acute nicotine withdrawal can exacerbate psychiatric symptoms and cause diagnostic difficulty […]

The indication of negative effects refer back to the presence (or absence) of events, aspects or ideas in the editorial or common practice and their impact. The indication of negative effects or consequences helps the purpose of arguing against the acceptance of the particular event, procedure, or activity. It reveals disapproval and entails discouragement.

5.2.3.5 Question raising

Along similar lines, some e-responders to editorials included questions in their *e-RREs*. Questions consist of (interrogative) sentences or phrases for eliciting information or evoking a response. They are addressed to a person, the editor, the board of editors or the editorial writer(s) in order to seek information through a reply. Other purposes of questions in *e-RREs* included posing them for examination or analysis, making proposals to be debated on, questioning editorial assertions or serving the rhetorical purpose of answering them. E-responders seem to be following the norm of questioning editorial assertions at their discretion. This is accepted behaviour in the international medical community, which uses

the scientific method. Obviously, some questions may implicitly reveal some form of criticism.

Question raising (f=24; 24,%) was an optional strategy in *e-RREs*, and, *question answering* (f=10;10%) was scarce. That is to say, most questions were left open, for the medical community to ponder on; that is, they contributed to a social purpose. Others are used as a rhetorical device as exemplified below:

> *[e-RRE007] The more puzzling aspect of this paper is why, when it is evident that all patients who need retinal examination should be dilated, is there a need for an editorial in a widely-read medical journal spelling this out?*
>
> *For me the answer lies in the psyche of doctors […]*
>
> *[e-RRE28] We doctors who pay for regulation are asking [..] what evidence there is that the measures to be used for revalidation will actually achieve their objects in selecting "a good doctor" […]*

Question Raising in *e-RREs* may have an embedded realization and sometimes serves the purpose of arguing within a stream of reasoning. In this context, this strategy signalled the *BMJ* community and raised questions in their argumentation left open for the medical community to ponder on, such as questions which they sometimes leave open, for the medical community to respond to, or which they eventually answered in their stream of argumentation.

Question raising and *question answering* in *e-RREs* may be a natural development following the reading and follow-up of an editorial. Alternatively, or overlapping it, the eventual decision of making them public may mean they are the first to pose a particular question and an answer, and, therefore, help create a *persona* in the virtual arena. This ties in with the presence of 'promotional' features in

scientific writing throughout the 1990s and 2000s (Berkenkotter & Huckin, 1995; Hyland, 2000; Yakhontova, 2003).

Thus, *question raising* has been identified as one of the steps (S1C) in the establishment of a niche in PhDTIs (C.Soler-Monreal et al, 2011). In *e-RREs* it also appears to serve this purpose. In PhDTIs it has an individual nature, the question is asked to be eventually answered by the researcher; *in e-RREs*, it may have an individual-to-social nature and a social-collaborative nature. The question has individual-to-social nature when it is eventually answered in the *e-RRE* by the e-responder in a stream of reasoning. The purpose of this is to have the medical community share the responders' rationale. It has a social-collaborative nature when the question is left open for the medical community to answer.

In the *BMJ* PPORD context, *question answering* constitutes a discretional written reply to a question previously posed, written in response or as a rejoinder. It may include an allegedly correct solution to the problem stated. The norm here seems to be that medical scientists may question any assertion made, also with rhetorical purposes, that is to say, to make assertions about editorial related aspects.

5.2.3.6 Indication of a gap

BMJ e-responders indicate gaps in the area of knowledge covered by the editorial. This strategy sometimes consists in the identification of an underresearched aspect or subject area, with the purpose of signalling paths for research; namely, this served a social purpose. The norm here is that the identification of gaps is welcomed behaviour in the medical community as it helps to advance medical science.

The *indication of gaps* was found in 23% (f=23) of the e-Rapid Responses, constituting an optional strategy, whereas *filling a gap* is virtually absent (f=2; 2%). The excerpt below illustrates one of these examples:

> *[e-RR023]* We were interested to read the editorial *[…] and support the key elements of transitional care they advocate. However,* ***one element that was not discussed*** *is the role of the General Practitioner (GP) in the management of chronic illness during and following transition [...]* ***We conducted a small survey of carers*** *of people with Profound and Multiple Learning Disabilities (PMLD) in Scotland […]*

In *e-RREs* this strategy fulfils the purpose of contributing to the common community need of identifying gaps in the state-of-the-art of their knowledge of a particular area, which is being discussed in the PPORD. One of the reasons why they are scarce is that they provide ideas for future research in the particularly competitive medical academic community.

The indication of gaps, present in the online genre of *e-RREs*, seems to occur in both printed and spoken genres in the academic tradition –e.g research articles and conference presentation introductions. This seems to imply that it is a strategy which is present throughout printed, spoken and online genres in the academic tradition.

5.2.3.7 Indication of problems

The data generated by this study revealed that in *e-RREs*, some *BMJ* e-responders opt for indicating complications and problems in, or likely to develop from, the assertions included in particular editorials or arising from related common practice. This optional strategy of signalling complications or problems consisted

in the identification and communication of matters or questions to be considered, solved, answered, or overcome; in other words, difficult issues. These matters involve doubt, uncertainty or difficulty. They constitute statements, questions, difficulties and statements raised for consideration or solution and thus constitute a source of difficulty, complication and/or dilemma. This strategy serves the social purpose of observation and identification of areas which may signal that editorial authors are following an erroneous path, or are getting the community into difficulties with their assertions. *Signalling a problem* is, thus, formulated, in order to help the authors, or the community, find alternative, better solutions or pathways. The norm here is that medical scientists can indicate problems for the better development of the medical field. This might signal competition or conflict of interests among researchers or groups of researchers.

In this study, *the indication of problems* (f=53; 53%) left open, was more frequent than the indication of the solutions (f=33;33%). A problem solution pattern, although not frequent, is exemplified below:

> *[e-RRE031] The authors raise some very important issues regarding surgical trauma care in the UK [1][SITUATION]. However I feel the problem runs much deeper than this and within the organisation of trauma systems as a whole in this country. Since as early as 1988 it has been recognised that* ***there are serious problems with the management of severely injured patients in the UK*** *[2][PROBLEM]. Our American colleagues have developed trauma centres hospitals graded on their ability to provide care for severely injured patients with level II + III centres feeding the more severely injured to a centrally located level I centre, capable of dealing with any multi-system trauma. A system proved to save lives [3,4][SOLUTION, IN USA].* ***However in the UK, largely for financial reasons we***

> ***have not adopted this system. Instead we opt for a much more haphazard model [4]****[PROBLEM]****.****[…][our brackets]***

The *indication of problems* in the framework of a previously described situation – with eventual indication of solutions is present in the online genre of *e-RREs* although it is not frequent. Rather, problems are often identified in isolation and left open for the medical community to be aware of, and, eventually, solve.

5.2.3.8 Indication of solutions

The data yielded by this study reveals that in *e-RREs* some e-responders opt for *indicating solutions* to the problems identified in relation to a particular *BMJ* online editorial with an *indication of the solutions* (f=33; 33%). Throughout their *e-RRE* they refer the act or process of solving a particular problem, the method or process of dealing with the problem or included the answer to a question indicating a problem or the explanation of something relevant. The *indication of solutions* is aimed at the purpose of overcoming the difficulties both editorial writers and the medical discipline may face or anticipate. As a norm it is discretional and a good thing to do, something which is welcome, socially accepted; especially as it is something scientists can do, communicate and foster a debate on.

5.2.3.9 Criticism

Criticism as an optional strategy (f=22; 22%) involved serious examination of the online editorial, together with an instance of critical judgment or comment. This study revealed that some e-responders decide to express disapproval by pointing out faults or shortcomings, among others, on *thebmj.com* editorial. The objective

is to signal those negative aspects which have to be amended for the sake of medical science. It might also hide criticism from opponents in the medical field, competing researchers and/or groups of researchers.

Criticism is not very frequent in the corpus of *e-RREs*. Again, this might be interpreted as an avoidance of open critique and a preference for the attitude 'let the data and research brought into consideration speak for themselves'. The following examples indicate an alleged mistake in interpretation and the consideration of an incorrect attitude when considering evidence:

> *[e-RRE013] Unfortunately, Dr [...] and colleagues have again* ***mis-quoted the results of our research and mis interpreted the implications****.*
>
> *[e-RRE044] Scott recycles the statement the depression is under-recognised and under-treated. What is the evidence for this? Some might point to a few community surveys using quantitative instruments supposedly 'tapping' depression. Such instruments with their demand characteristics and narrow focus on "symptoms", generate inflated prevalence estimates because of their structural inability to asses the whole person-in-life context.*

Several *BMJ* e-responders made indications of mistakes in online editorials. These mistakes consist in errors (or faults) in the opinion, judgement, or action of editorial writers. They seem to result from insufficient knowledge, defective judgement, poor reasoning or carelessness. They include misconceptions, misunderstanding, misinterpretations, confusions and even wrong evaluations. The purpose is to set things straight, in any case, this may involve subtle criticism. The norm followed here is likely to be that medicine as a science must be accurate and precise and this is a social responsibility and common endeavour.

5.2.3.10 Counterclaiming

The strategy of *Counterclaiming* in *e-RREs* consisted in setting up a claim in opposition to another found in the editorial. On some occasions e-responders show a preference for this strategy with the purpose of either opposing or offsetting claims in the online editorial. Apparently, the norm is that it is at the medical scientists' discretion to counterclaim when they hold different opinions or have different views from those of the editorial writer.

A closer look at the data indicates that *counterclaiming* is scarce (f=8;8%); and it might be interpreted as a face-saving strategy, the avoidance of opposition to an expert editorial writer on the part of most e-Rapid Response authors:

> *[e-RRE019] It is not secondary care that drives unscheduled activity but patients. Hospitals are not 'sucking' funds from primary care in some grotesque saprophytic manner. Indeed the opposite is true in practice. […]*
>
> *[e-RRE080] If it is argued that detained patients should be treated in this manner then fairness demands that access tobacco should be banned for all. On health grounds this is the logical position, not the position suggested in the editorial. […]*

The optional strategy of *counterclaiming* in *e-RREs* reveals and helps the purpose of asserting a personal, opposed view of matters in the PPORD.

Counterclaiming in the PPORD might be scarce for several reasons; e-responders seem to favour sharing community held views, as expressed in the editorials, and favour expanding the e-health debate as a way to go online and participate in the PPORD. Some e-responders may not have sufficient knowledge to openly contradict the view of a particular medical or research area offered by an editorial

or research paper. In fact, quite often, those who may have the necessary knowledge show a preference for not going online and for not speaking out regarding the issue and hence coming up against an alleged expert in the online debate, or may not want to support their contradicting assertion with relevant literature, probably as a face-saving rhetorical device.

5.2.3.11 Reference to or description of medical case

The analysis of our results shows that few *BMJ e-RRE* (f=3;3%) responders make *reference to a medical case report* or described a particular one. The purpose of this optional strategy is to provide the grounds for the relativization of assertions made in the editorial. Medical cases can be instances that do not follow regularities, although they may have other purposes. Medical tradition has employed medical cases as a way to exemplify disaccord with medical accepted regularities, to present ad-hoc medical procedures. The norm here seems to be that mentioning medical cases is discretional, although they must be relevant to the context. The following case report is employed to exemplify an association of variables, which may have implications in clinical practice and suggest venues for further research:

> *[e-RRE027] Recently, Cummings and Rosenman reported of a case of ulcerative colitis (UC) in remission, subsequently exacerbated by occupational mercury (Hg) vapour exposure, the first report of an association between UC and Hg vapour [1], which may well have wider implications.*
>
> *[e-RRE074] Some years ago, one of my colleagues, pale, sweating and clearly hungover, made a bee line for the drug cupboard in the GI section of the radiology department and helped himself to 10mgm of oral Metoclopramide syrup. Within ten minutes his*

> *pallor disappeared and he became his normal efficient and sunny self [...].*

The experience of a case above suggests a possible healing effect of a medication, which would entail one of the possible solutions to the problem presented by post operative nausea and vomiting. This is a theme discussed in the original editorial, also seeking for social support, and suggesting venues for further research.

5.2.3.12 Reference to experience

Some *BMJ* e-responders make *reference to their own experience* as doctors or researchers. Hands-on experience and medical practice seem to be recognized as a source of knowledge and knowledge modification which may challenge existing knowledge. The purpose of the reference to expert e-responders' experience is used as the grounds for further reasoning or assertions, which may eventually support views opposing or supporting those of the online editorial. The norm here seems to be that *experience* can be referred to discretionally as long as relevant to the context.

Personal experience as a medical professional in a medical centre or in an area of specialization in medicine was found in 20% (f=20) of the corpus of *e-RREs*. The following excerpts illustrate reference to experience in our corpus. The following example also helps the social purpose of throwing light on the presence of angle closure glaucoma in the Chinese population –the figure is missing in the editorial cited articles.

> *[e-RRE011] We would like to share our experience involving 1403 participants in a community eye screening programme for Singapore residents aged 55 years and older. All participants underwent non-contact 'air-puff' tonometry and a slit lamp*

> *examination by an ophthalmologist or optometrist before receiving a drop of 1% tropicamide in each eye for mydriasis prior to fundus photography. We had one case of unilateral angle closure glaucoma in a 68-year-old phakic Chinese woman following the pharmacological mydriasis in this cohort. [...].*
>
> *[e-RRE024] We have recently abandoned attempts to conduct a trial of an alerting drug in patients with fibromyalgia. The Trials Directorate of the Medicines and Healthcare products Regulatory Agency (MHRA) were as helpful as possible within the limits of the regulations but the cumulative burden of regulatory requirements and delays, both locally and nationally, resulted in the modest grant from the pharmaceuticall company being virtually exhausted before we could even begin to contemplate the recruitment of a single patient [...].*

In this second example, the expert responder cites his/her experience to support the idea of a harmful impact of EU clinical trials directive in a context different to that cited in the original editorial (research into fibromyalgia); hence supporting the main argument advocated for in the editorial.

5.2.3.13 Call for change

Several *BMJ* e-responders included a *call for change* in their *e-RRE*. This strategy entails an appeal to the community, an exhortation, to modify the current state-of-the-art regarding knowledge, actions or even attitudes. In this context it seems to serve the social purpose of trying to modify or direct the pathways of medical scientists' behaviour in terms of thoughts and actions. The norm here appears to be that it is discretional for medical scientists to make appeals to other medical specialists for these purposes. This optional strategy emphasizes the nature of medicine as social scientific endeavour and is present in 65 % (f=65) of the corpus

of *e-RREs* analyzed. As Editorials are often timely state-of-the-art based articles, this seems to imply that both the editorial author as an expert and the *BMJ* readership as medical professionals and researchers were aware of the importance of being at the cutting edge in their field. The frontiers of what is cutting edge, which, in the case of *BMJ* e-Rapid Response writers, is constantly being challenged, and changed by medical practice, experience and new research. These actors push and change the cognitive models medical professionals have of their best and everyday medical practice and include *calls for change* in the medical community ways of thinking or beliefs (including raising awareness, f=1;1%), calls for change in medical actions in the form of advice (f=14;14%), urge (f=17;17%), need (f=20;20%), suggestion (f=6;6%), prediction (f=5;5%), hope (f=1;1%) and request (f=1;1%). Action appeals, for example, urge the medical community to change their behavior in their medical practice or hospital on theoretical grounds or based on research, they also appeal to the community to undertake particular research tasks.

> *[e-RRE006] Patients should be advised to ensure reliable means to summon help in the hours following mydriasis, lest this devastating complication occurs.[advice]*
>
> *[e-RRE027] It is vital that children and hospital patients be protected by appropriate labelling of this device.[urge]*
>
> *[e-RRE046] This pair of articles highlights the need to avoid confusing primary and secondary care issues when discussing the subject of CAP. [Community acquired pneumonia][need] [our brackets].*
>
> *[e-RRE081] Most researches focus on the pharmacological aspects of smoking in those with mental health problems. Ethnographic study exploring the meaning of this smoking subculture in*

> *individuals with psychiatric disorders may help to identify more suitable interventions for this group. [suggestion]*

The *call for change* strategy serves the purpose of "pushing the envelope" regarding the shared common model of reality (medical theory and practice) on a particular area held by the medical community. It urges the medical community to change their present model of reality, procedures and/or practice to jointly develop a more accurate or precise "map of the territory" –or model of medical reality. It also pushes practitioners to optimize medical practice in the light of new evidence or to stimulate research. Some of the realizations of this strategy are distinctive of *e-RREs*, as the authors comment on the "maps" or views original editorials provide medical experts and their readership with.

5.2.3.14 Words of warning

Some *BMJ* e-responders include*a word warning* or caution in their *e-RRE* (f=11;11%). This optional strategy consists in an attempt to change or divert the direction of current state-of-the-art knowledge, to, then, avoid negative effects. Thus, it seems to serve the social purpose of trying to modify or direct medical scientists' behaviour in terms of thoughts and actions or to urge prudence in this sense. Similarly, the norm here seems to be that it is discretional for medical scientists to warn or caution other medical specialists for these purposes. This strategy also emphasizes the nature of medicine as a social scientific endeavour.

A word of warning or cautioning the medical community might be interpreted as entailing a *call for change* in the medical community's attitude towards specific issues so as to prevent possible negative effects. In the following example the

strategy aims to warn against the posible negative effect of confusion on the part of e-readers regarding two issues:

> *[e-RRE039]* ***However, I was wondering about the need for caution with the rapid growth of the number of groups*** *(according to the article, there are more than 7000 communities on yahoo alone). In a medical world revolving around "Evidence Based Medicine"; Are the growth of vast numbers of these groups beneficial to readers or to the contrary become confusing?*
>
> *[e-RRE087] While appropriate caesarean section will avoid some maternal* ***mortality*** *and* ***morbidity, it may cause some of these if a subsequent delivery does not occur in a centre providing appropriate emergency obstetric care 24 hours per day, 7 days per week.***

A close look at the last example makes us aware of the fact that the e-responder is warning against the danger of mortality and morbidity in women –who have undergone a caesarean section, and who may need emergency obstetric care at any time, something that may not be available in all regions. Consequently, this may affect medical decisions in obstetric practice around the world.

5.2.3.15 Clinical practice

The optional strategy of making reference to *clinical practice* is hardly present in our corpus of *e-RREs* (f=8;8%). It often serves as the grounds for reasoning. In the following example it reiterates the main thesis supported in the editorial, including a problem dealt with in the original editorial, and the subsequent debate to suggest a solution.

> *[e-RRE007]* ***Patients with angle closure glaucoma are invariably treated by ophthalmologists and many of us have seen a number of patients who have been put into angle closure after pharmacological pupil dilation.*** *One of the first things we tell*

> *these patients is that they were going to get angle closure glaucoma anyway and the dilation merely brought this event forward a little.*

> *[e-RRE052]* ***Our waiting room is a hotbed of social interaction and our consulting rooms are private places where tears and laughter are often expressed: if patients don't get better at teh doctors, they at least have the opportunities to feel better.*** *It would be a pity if unmeasured benefits were lost by another well-meaning form-filling exercise.*

In the excerpt above the e-responder uses clinical practice to argue against patients' completion of a form in their practice. It advocates for and reaches the conclusion that it is better for patients not to lose the benefits of social interaction and privacy.

5.2.3.16 Situation

In *e-RREs* the *situational* strategy was quite frequent (f=49;49%). It consisted in the delimitation of a context, usually by means of a geographical reference, an event or an initiative (signalling a context change), faced by the medical community.

> *[e-RRE073]* ***Given the role of primary care as a "gatekeeper" to secondary care in the UK, most of the patients being treated in hospitals have, in fact, been referred there from primary care. [...]***

> *[e-RRE035]* ***Two large multi-centre studies (NICE-SUGAR (5000 patients) and GLUControl trial (3500 patients)) aim to examine the effect of tight glycaemic control on morbidity and mortality in a mixed population of medical and surgical critically ill patients and results should be available in 2007.*** *We would argue that until this additional data is published tight glycaemic control remains an appropriate treatment in amixed ICU population.*

5.2.3.17 Clarification

The data generated by this research revealed that the optional strategy of *clarification* was present in 12% (f=12) of the *e-RREs*. It serves the purpose of clarifying positions in the online debate and clearing up propositions in case of misunderstanding.

> *[e-RRE014] [..]**This is not to say that acute angle closure after dilation could not occur – it will occur in an extremely small proportion of people, which the best available evidence puts at between 1 to 6 per 20,000 people in the general white population, and less than 1% in most high risk groups […]***

> *[e-RRE046] [...]**Our article was commissioned as a BMJ Learning module for juniors doctors managing patients admitted to hospital and consequently, does not attempt to address the diagnosis and management of CAP in primary care. In particular, as regards microbiological diagnostic testing, a careful reading will confirm that we only discussed "the tests… recommended for patients admitted with…pneumonia". […]***

In the examples above it avoids misunderstandings on the part of e-readers in the online debate.

5.2.3.18 Own research

The data yielded by study showed that the optional strategy of bringing the *e-RRE* responders'*own research* into the online debate is present in 10% (f=10) of the *e-RREs* in our corpus.[30] In this strategy e-responders sometimes outline their own research, or include the announcement of research or of principal findings.

[30]We would agree that this could be considered evidence –although, sometimes, it had not been published- although we feel it served several other purposes. Alternatively, if this is the case they could easily be added to evidence figures.

Occasionally research results are reported, commented upon, summarized and evaluated. This strategy serves serveral purposes; the researcher:

- Informs the medical community about his/her related research, on his/her related contribution to the field. Tries to make his/her research fit into the ongoing health debate.
- Self promotes himself/herself
- Marks out his/her research territory
- Advocates for his/her research claims

In the PPORDs they seem to help, among others, the purposes of:

- Contributing to the occupation of a niche identified or referred to in the editorial or paper
- Helping supporting or opposing paper or editorial views on a particular area.
- Informing the medical community on recent (relevant, ongoing, preliminary, unpublished...) research or experiences related to paper contents in other countries or by other researchers than those quoted in the original editorial.
- Promotion of own research or experience at an individual or international level.

In the following example, the researchers identify a gap in the editorial, and, with their (seemingly unpublished) research that they share with other readers of the online debate, they contribute to the development of knowledge in the area:

[e-RRE023] [...]Dear Sir,

> *We were interested to read the editorial by McDonagh and Viner (1) and support the key elements of transitional care they advocate. However, one element that was not discussed is the role of the General Practitioner(GP) in the management of chronic illness during and following transition. GPs play a central role in care coordination post-transition and are wellplaced to help provide continuity of care.*
>
> ***We conducted a small survey of carers of people with Profound and Multiple Learning Disabilities (PMLD) in Scotland. This revealed carers were significantly more dissatisfied by care on transition to adult services and failure of care coordination was a central factor in this. In addition a follow-on survey of GPs in Lothian found that 65 of the 100 who responded to the questionnaire felt they did not have adequate training to assess and treat people with PMLD and 63 felt that they would benefit from additional training****.[…]*

5.2.3.19 Interpretation

Our study revealed that interpretation as an optional strategy was hardly present in *e-RREs* (f=5;5%). This is illustrated in the examples below, in which the e-responder interprets both a principle, which is then applied to a medical context, and the results of a study:

> *[e-RRE052] [...] In quantum mechanics, Heisenberg's uncertainty principle states:*
>
> *"The simultaneous measurement of two conjugate variables (such as the momentum and position or the energy and time for a moving particle) entails a limitation on the precision (standard deviation) of each measurement. Namely: the more precise the measurement of position, the more imprecise the measurement of momentum, and vice versa. In the most extreme case, absolute precision of one variable would entail absolute imprecision regarding the other."*
>
> ***In other words it is impossible to measure a system affecting that system due to a measurement effect on the system.***
>
> *Since the patient's agenda and the General Practitioner's view of that agenda are conjugate variables, it follows that measuring one (through an agenda form) will inevitably affect*

> *the other (perhaps, for example, shifting the patient's view and description of their own agenda by completion of the form).*
> *In the study commented on about 5% of patients failed to complete agenda forms, though* ***this may reflect illiteracy in the population studied,*** *they might have served as a useful control for this measurement effect had the study design permitted this.[…]*

5.2.3.20 Implications

The data in this research reveals that *drawing implications* is an optional strategy which is hardly present in *e-RREs* (f=5;5%).

> *[e-RRE075] [...]The provision of smoking areas in mental health units means that only those who choose run the risks, such as they are, of passive smoking.*

5.2.3.21 Conclusion

Some e-responders included a *conclusion* in their *e-RREs*. A *conclusion* is a strategy which consists of a judgment or decision reached after consideration of factors, evidence, or deliberation. It may also consist in a deduction, a proposition or a resolution, concluded from one or more premises present in *e-RREs*. This optional strategy (f=39;39%) in *e-RREs* has the purpose of adding new knowledge to the field and/or supporting or opposing the contents of the online editorial under review in the online debate. The sample e-Rapid Response below illustrates how conclusions were drawn by authors.

> *[eRRE015] Chris Ham1 believes the turnaround teams from the private sector will find it difficult to deal with NHS deficits. The solution he describes involves reducing spare capacity, increasing performance, and fully engaging clinicians. These measures, aspects of the failure regime for hospitals2, have some chance of success in provider organisations.*

> *The position for PCTs in deficit is even more difficult. It is likely to be even more alien to the expertise of those now being bought in from the private sector as recovery teams. PCTs are largely commissioning organisations and do not have direct levers to reduce acute capacity, even when it is recognised not to be affordable. Directly provided services form only a small proportion of PCT spend, and are needed to help reduce hospital activity. Were local hospitals to increase their efficiency, say by reducing length of stay, this exacerbates the problem for PCTs, unless those freed up beds are closed rather than used to suck in more income under payment by results. GPs are the clinicians who most need to be engaged by PCTs, but they cherish their independent status. It takes exceptional leadership to persuade them to act outside their direct interests in demand management, in advance of any of the benefits promised for them from practice based commissioning.*
>
> *There is little infrastructure in PCTs to downsize. Deficits of the size now seen in some PCTs would be dealt with by bankruptcy in the private sector, or increased long-term borrowing, neither of which are available to PCTs. Many chief executives believe the current difficult financial situation is generated by government policies, rather than local incompetence3. In these circumstances,* ***private sector recovery teams have an exceptional and perhaps impossible task before them3, and especially PCTs.***

Conclusions constituted a major factor in the construction of the *e-RRE* author's viewpoint in the virtual arena. The absence of conclusions in *e-RREs* was found in 60% of the corpus.

5.2.4 Closure

The optional closure move was realized by a single strategy *polite ending,* which was virtually absent in *e-RREs* (f=4;4%). That is to say, most *e-RREs* did not include one. It is a letter-like strategy, whose presence supports the idea that *e-RREs* are online subgenres that stem from the epistolary tradition.

Signing off is available online at *thebmj.com*. This identification of authorship, which serves the purpose of claiming ownership of writing is made explicit on a left margin link in *E-RREs*.

5.3 Chapter Summary

Chapter five comprises the description of the results of our qualitative and quantitative study of *e-RREs*. *E-RRE* generic structure has been identified together with its rhetorical structure in terms of strategies, making use of the concept of purpose. Chapter six will refer the results of my qualitative and quantitative study of *e-RRRAs*.

CHAPTER 6.

THE RHETORICAL STRUCTURE OF ELECTRONIC RAPID RESPONSES TO ONLINE *BMJ* RESEARCH ARTICLES

6.1 Introduction

In previous chapters I have described the background to *e-RRs*, the objectives of this research and the procedure for the selection of two different representative samples of electronic rapid responses, those of *e-RREs* and *e-RRRAs*. Chapter five has refered to the analysis of the organizational structure of *e-RREs*. This chapter will refer to the result of the analysis of the organizational structure of *e-RRRAs*.

Here, I describe our qualitative analysis of the corpus of 100 e-Rapid Responses to online *BMJ* editorials as examples of expert-to-expert communication; I study their purposes in the post publication online debate and their schematic structure. I have highlighted the fact that electronic rapid responses to research articles could be considered one of the emerging academic e-subgenres among other electronic genres or subgenres. I have also narrowed the scope of my research down to e-Rapid Responses to online research articles (RA). In this way, the process of inference of regularities would yield a characteristic schematic pattern peculiar to *e-RRRAs*.

Following Swales' (1990) approach it is essential to identify the purpose of e-Rapid Responses to online research articles as a medical subgenre. The primary purpose of *e-RRRAs* is to review research articles. This implies the intersection of research article contents and readers' perspectives through the reading of the research article. Thus, this intersection entails the readers' emotional and cognitive reactions to and processing of the research article information and contents for posting an electronic response. Moreover, the careful reading of my corpus reveals that expert readers are well aware of the fact that, when posting a

rapid response, they are engaging in a worldwide online debate in medicine in which they may encounter other academic positions, and support or oppose them. Therefore, the purposes in the post publication online debate that are analyzed (see Table 6.1. below) are:

***e-RRRA* purpose**	**f**	**%**
Research article support	28	28%
Opposition	61	61%
Reply/response	11	11%

Table 6.1. e-*RRRA* purpose in the PPORD

The study of the *e-RRRAs* of our corpus reveals that more responders (f=61;61%) opted for contesting research articles, showing opposition, and fewer (f=28;28%) opted for supporting them.

Expert readers seem to be well aware of the fact that medicine is a common, collaborative endeavor, and of the fact that they are constructing knowledge. In their review of research articles, expert readers reveal themselves as highly concerned with the commitment to the medical discipline, to the scientific method, and the concern that its principles and/or protocols are followed closely. This may explain the option for opposing research articles, questioning the validity of published research article claims, even when they have gone through a peer-review and gate-keeping process.

Fewer responders opt for supporting research articles including in their response the indication of positive effects or benefits of what had been referred to in the research article, or their own research in support. Several reasons might account

for the presence of support of research articles by other researchers; namely, to get to be on good terms with an expert, to get easy access to the publication of their own work, to avoid future criticism of their own papers, and to collaborate in the future, among others.

Finally, a hardly 11% (f=11) of research article authors opt for responding to the online debate. This often serve a range of purposes like acknowleging and weighing up other medical scientists' contributions, clarifying viewpoints, acknowledging limitations or reaching final conclusions. Most leave the debate open to further contributions or feel the debate deserved no further response; alternatively, this might also reflect editorial policies or decisions.

As mentioned before, *BMJ* readers intend to communicate their emotional and cognitive reactions to a research article when responding to it electronically. Nevertheless, on the other hand, they seem to be well aware of the fact that, in the event they do so, they also engage in an online worldwide debate. These might be the reasons why their e-Rapid Responses seem to have several purposes to respond to different cognitive elements in the communicative situation. This, on the other hand, may also account for the fact that they try to make their positions clear in the e-debate, and attempt to argue their contributions satisfactorily.

The *e-RRRA* can be considered a research-related online emerging subgenre generally addressed to experts, such as the *BMJ* editorial board and the international *thebmj.com* readership. It aims at convincing a potentially hostile or sceptical readership of a particular and at times personal view on a research article. For an electronic responder who opts for engaging in an e-health debate

part of the post-publication review of a research article, acquiring the prerequisite "situated cognition" (Berkenkotter & Huckin, 1995:3) is essential to be capable of developing their *e-RRRA* strategically and to find their own voice in the online community. Unquestionably, image creation is central. Among the factors e-responders have in mind when choosing among rhetorical strategies when posting to the e-debate, showing a particular picture of themselves as researchers and scientists in cyberspace seems to be essential. The establishment of "scholarly credibility on the author as a worthy member of the international research community" (Yakhontova, 2002, p. 231) may also explain why e-responders argue their *e-RRRAs* in detail, sometimes framing their reasoning within the state-of-the art literature of the subject matter. The purpose of *e-RRRAs* seems, therefore, to be, not only informative, but also rhetorical in that it aims to persuade the *BMJ* readership of its viewpoints, and that seems to affect the choice of language and rhetorical strategies eventually included in the emerging e-subgenre.

The relationship of the *e-RRRA* writer with the readership is different from that of the RA or the Conference Presentation. In an inner circle you can find the Research article author and the board of *BMJ* editors, in a wider one you have to be aware of an international readership.

The members of the discourse community are well aware of the fact that they are all constructing knowledge and that is a crucial and significant task or undertaking. Therefore, it is important to know who has commented on what, and what has been stated in relation to what in the scientific community; hence, *e-*

RRRA authors are identified, as well as research article authors. This is the reason why, signalling and socially recognising a contribution to the medical and/or research field is almost always made explicit in *e-RRRAs*. Most experts acknowledge that careful thinking, researching, writing, and above all constious analysis requires time and effort. This is also the reason why *e-RRRAs* are well argued and statements tend to have sound support, experts do not wish to be criticised for careless inference, facile opinions, and/or useless suggestions.

The range of purposes revealed in the study of our corpus seems to be an effect of the *BMJ* editorial decisions –in the sense that *e-RRRAs* with similar contents are not published, only those adding something to the e-debate were.

In research articles, authors seem to offer a particular picture of an area of development in the scientific field in which there seems to be a reiterated rhetorical move from the general research context towards specific knowledge claims. A similar funnel effect or rhetorical narrowing has also been observed regarding conference presentations and lecture introductions (Rowley-Jolivet & Carter-Thomas, 2005). In contrast, *e-RRRAs* seem to be characterized by the opposite, at times reiterated rhetorical move from the particular claim to the broader context of the field, and by the complementary, from the general to projection of the general into a particular future.

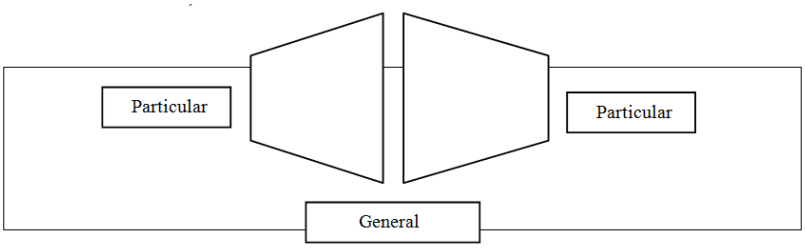

Figure 6.1. Framework for *e-RRRAs*

In this sense the *e-RRRA* author presents a personal view of the online research article; however, most authors also seem to view it in the scope of the broader medical community.

6.2 The Rhetorical Structure of Electronic Rapid Responses to online *BMJ* Research Articles

A close look at the data indicates that, together with a generic structure, *e-RRRAs* reveals considerable rhetorical flexibility. This rhetorical flexibility, is due to the embedded contexts they emerged in and in response to, the *e-RR* electronic forum, the *BMJ* board of editors, the editorial author (s) and the worldwide *BMJ* readership, as well as to the particular selection of research article contents they wrote or contributed to for review, and their specific nature.

Genre flexibility has been accounted by making reference to disciplinary variation and the evolving requirements and practices of a particular discourse community (Askehave & Swales, 2001; Anthony, 1999). In this sense what this study underlines is a synchronic corpus-driven view of the rhetorical structure of this e-subgenre in the field of medicine and the study has yielded a letter-like generic structure with particularities and a complex and embedded rhetorical structure which reflects medical practice, oral and written contexts of the medical discourse community.

Figure 6.2.below illustrates the conceptual distinction between generic structure and rhetorical structure of *e-RRRAs* as obtained in this study.

Text [*e-RRRA*075]	**Generic Structure**	**Rhetorical structure**
Goth Idol **EDITOR –**	Title	Title
	Opening	Salutation
Young's interesting study (1) claims to find a strong association between Goth subculture and deliberate self-harm before and after adjusting for confounders. Importantly, it fails to distinguish that the Goth subculture is not easily defined or categorised, spans several continents and has evolved to include a wide range of musical and clothing styles. This contemporaneously includes Mallgoths in the US, Gogans in Australia, Darkin Latin America, Cuervos in Spain and Spooky kids and Neogoths in the UK(2, 3). Young et al should have made it clear in their discussion that any conclusion only relates to a small sample of gothic youth in the Central Clydeside Conurbation. One cannot assume that Goth youths' subcultural trends, icons and ideals would be similar in other geosocial regions. Perhaps not all confounders have been taken into consideration given that Young's study was conducted in Scotland between 2002 and 2004. During this period, a Scot won 'Pop-Idol' (Michelle McManus) and another won'Fame-Academy' (David Sneddon). Both these TV programmes were difficult to avoid given the intense media coverage. The study concludes that the causality for Goths self-harming more than, say, Pop-Fans (53% and 7% respectively) remains unclear. The exasperation with current popular cultural trends may have driven one subculture, the Goths, to drastic methods of protest, such as overt self-harming. Could frequent, involuntary exposure to mass-produced pop music affect the mental health of one youth sub-culture population more than another's? As Ovid states in Tristia: Est quaedam flere voluptas.	Body	Social acknowledgement/focus Criticism (to method) Problem Solution Criticism (to method) Criticism (to interpretation of results) Question raising
.	Closure	Polite ending (online sign-off)

Figure 6.2. Generic structure and rhetorical structure of a sample *e-RRRA*.

Using this analytical framework the *e-RRRAs* in our corpus have been subjected to textual analysis to identify their rhetorical structure (see Appendix 6.1).

In *e-RRRAs* the generic rhetorical letter-to-the-editor structure strategies are likely to be carefully selected as a a way of establishing the *e-RRRA* writer *persona* (Campbell 1975:394), the created personality which is suggested, in other words, moved to the forefront in the act of communicating in the *BMJ* post publication online review debate. This seems to be present through the progression of

strategies in the *e-RRRAs*. *Salutating* the editors may be viewed by readership as a correct rather protocolized strategy, in realization of the opening move. Initially signalling and welcoming editorial contributions may have similar functions; developing an accurate and careful argumentation with scientific appearance also seems to fulfil this purpose; and ending the document with a closure statement (the polite ending) may also be viewed as a correct, protocolized move which has been obviated in the example above (figure 6.2.).

***E-RRE* structure (strategies)**			
Strategy	**f**	**%**	**Classification**
Title	100	100%	Obligatory
Salutation	29	29%	Optional
Social acknowledgment/ focus	66	66%	Conventional
Agreement	9	9%	Optional
Background knowledge	35	35	Optional
Evidence	24	24%	Optional
Criticism	62	62%	Optional
Indication of effects	36	36%	Optional
Words of warning	7	7%	Optional
Indication of problem	23	23%	Optional
Indication of solution	18	18%	Optional
Question raising	33	33%	Optional
Question answering	5	5%	Optional
Call for change	40	40%	Optional
Situation	31	31%	Optional
Counterclaiming	11	11%	Optional
Own experience	11	11%	Optional
Indicating a gap	13	13%	Optional
Clarification	14	14%	Optional
Own research	9	9%	Optional
conclusion	38	38%	Optional
interpretation	11	11%	Optional
Implications	8	8%	Optional
Polite ending	4	4	Optional

Table 6.2. Strategies in *e-RRRAs*

The *e-RRRA* strategies scrutinised in this research have been classified according to their frequency of appearance in the sample following Rasmeenin's (2006)

classification as obligatory (100%), conventional (between 66% and 99%) and optional (inferior to 66%)[31]. Table 6.2. below summarizes the results of our study.

As can be seen from the data above, *e-RRRA* writers tend to use an ad-hoc selection of strategies when building their online argumentation which originated in the common activities they engaged in when acting as medical professionals in their medical practice and in oral and written contexts.

6.2.1 Title

All *e-RRRAs* in our corpus include a *title*, the distinctive name of the *e-RRRA* work. *Titles* in *e-RRRAs* tended to summarize the main contents of the *e-RR* (f=68;68%) or opted for the main argument they argued for in the online debate (f=22;22%); authors' responses were identified as such (f=10;10%).

> [*e-RRRA*021] Management of Chlamydid infection in primary care.
>
> [*e-RRRA*030] Searching for an acupuncture placebo.
>
> [*e-RRRA*036] But the NHS doesn't always support death at home!
>
> [*e-RRRA*054] Bio-psychosocial model is required for patients with severe dementia.

Titles serve the purpose of informing the reader about the main contents of the *e-RRRA*, or authors' position in the post publication online debate. In the online debate context, research article readers seem to be extremely fickle, of those who read the research article, only some would read the rapid response section, and among these only some would read the responses to a particular research article – which is specially important if the reader is to post a response. Therefore, the *e-RRRA* title might have served as a general descriptive heading which might help

[31]Our percentages.

the reader decide whether to read a particular e-response or not. The *BMJ* interface of an online research article provides information on which research articles have received responses, and which have not. This may help inform *BMJ* readers on which editorials have been contested, elicited controversy or raised interest at a worldwide level. Furthermore, a look at the titles on the response page can help the reader gather a general idea of the directions of a particular PPORD.

6.2.2 Opening

The *opening* was the initial part or stage of the *e-RRRA*, which was realized by the salutation strategy in which the e-responder made the *e-RRE* open as he or she entered the virtual arena of *thebmj.com* PPORD. It consisted of a *salutation* to the editor of the *BMJ* e-journal, or board of editors. It has the purpose of addressing the editors, identifying those to whom the contents of the *e-RRRA* were addressed primarily, investing the *e-RRRA* with more politeness. Politeness as a norm must rule exchanges between the expert members of the particular medical discourse community[32], as high-ranked professionals invested with social power. These professionals are responsible for the publication of the related e-paper, that is, for the maintenance of academic standards when publishing and, especially, they hold the power of deciding whether to publish a particular e-paper or not, that is to say, their power as gate-keepers, authorities. The *opening* is a letter-like move, whose presence supports the idea that *e-RRRAs* stem from the epistolary tradition which has characterized medicine since the sixteenth century.

[32] 'being polite' has been considered one of the maxims ruling conversational exchanges (Grice, 1975), which seems to operate in the exchanges of the PPORD context

Our study showed that only 29% (f=29) employed a *salutation* strategy in their responses; that is, most *e-RRRA* responders (73%;f=73) skipped this strategy, probably because the rapid response fora suggests a certain degree of informality in which it could be obviated. The term *rapid* response, as eliciting a rather spontaneous response, may account for this fact. The excerpt below illustrates a typical e-Rapid Response without an opening:

> The numbers in this study [1], which suggests that the majority (2/3) of the misleading statements made in a virtual community were subsequently corrected by somebody, have to be questioned because of a major methodological problem which almost certainly introduced a substantial bias: The author who evaluated the accuracy of the postings was not blinded to the community responses. Under these circumstances it is no surprise that he will preferentially classify statements as "misleading" to which others in the community responded with a correction/critique, at the expense of those which did not evoke a response.
>
> The "clean" and rigorous methodology to determine an unbiased proportion of misleading and subsequently corrected statements would have been to blind the assessor(s) to the community responses, and only after a statement has been classified as misleading have an independent evaluator assess whether a response has rectified an earlier response. I am mystified how the peer-reviewer and the BMJ hanging committee could let this slip through, as in my mind this completely invalidates the study.
>
> On the other hand, most experts on virtual communities (in fact, anybody with common sense) would agree with the obvious truism that if people say something wrong in public other people will correct them - and few would be surprised by the findings of this study - which raises the question if there is anything new in this paper, and if research grants shouldn't be better spent to address the real problems of this world. I also have a problem with the suggestion in the discussion that the self-corrective power of communities is something "new" or something that emerged just recently. The ancient paper from Culver which they cite as historical comparison did not find similar results simply because Culver did not systematically look at this issue of subsequent corrections, not because "the Internet was new" or because people

> have changed. As anaside, the statement that "the Internet was new" [in 1994] is simply wrong
>
> - the World Wide Web may have been new, but not the Internet, and certainly not virtual communities. Virtual communities long predate the World Wide Web (Bulletin Board Systems, FIDOnet, Usenet etc). I have observed these discussions for the past 30 years as moderator and participant - I do not think anything substantial has changed in terms of people getting better or worse in posting and/or correcting misleading information.
>
> I think the authors, peer-reviewers, and editors of this piece were getting a bit carried away with their excitement about technology when publishing this paper or even citing complexity theory, chaos theory orself-organization [2] to describe the simple (= not complex!) phenomenon that when people speak or interact with each other (be it offline or online) people will correct each other.
>
> The same self-corrective measures are luckily also true for the scientific community. If somebody says something stupid, others will react. Am I the only one who sees that this emperor has no clothes? Can we now go back to the real problems of the world?
>
> [*e-RRRA*068] Questionable methodology and unsurprising findings

Most *e-RRRA* authors opt for a straight response to an article, in the PPORD probably because appropriate adjustment to scientific norms and values is ranked top, and hence, their review is the most important, which may justify going for straight forward unembellished comment. Alternative reasons could include the fact that busy professionals tend to be practical and can occassionally skip rather protocolized strategies and direct their attention to more important matters, the core of research in their field (i) or, rather, that the term “rapid response” has led them to direct their effort to the review, allowing them to skip a protocolized move, that of the *opening*.

Although infrequently, some e-Rapid Response authors decide to address the *BMJ* editor or editorial board, in a letter-like move. Among the most common

salutation openings examples like *Sir, Editor,* and *Dear Editor* were found. This seems to imply that the communicative situation of writing an e-Rapid Response online has features in common with that of writing a letter-to-the editor of a printed journal. An e-Rapid Response author is not only posting a response to a research article author's work, they also seem to be well aware of the *BMJ* editorial board and the worldwide *BMJ* readership, professionals, researchers and patients in the field of medicine. Addressing the editor, therefore, is probably an optional rather protocolized strategy in a written contribution providing a review on a written genre which most responders opted for skipping. The opening move found in *e-RRRAs* has also been found in epistolary genres (Henry, A & R.L Roseberry, 2001). It is a rather protocolized move, which serves the purpose of addressing the editor, and secondarily, the e-reader, whose presence supports the idea that *e-RRRAs* are emerging online subgenres that stem from the epistolary tradition which has characterized medicine since the sixteenth century.

6.2.3 Body

In a peer-reviewed journal such as *thebmj.com*, peers can evaluate other colleagues' work, that is to say, they may appraise Research Articles critically. A review of a research article implies the evaluation by fellow specialists of the research, an expert, has written, as reported in the research article, to, among others, check its methods, interpretation of results, claims and conclusions, assess its suitability for publication, or for further development, that is, to extend the online PPORD debate worldwide.

This move consists in the written expression of the review a *BMJ* reader has made of a particular research article. It involves a serious examination and judgement of the research article, which may entail a critical review or commentary, a critique or a critical discussion of a particular aspect in the research article. The purpose of this move is to help accommodate the new knowledge provided by the research article into the field through the identification by the e-responder of those contents or claims which are or are not to be included in the field, or by focusing on certain aspects of the research article. Many *BMJ* e-responders read through research articles with an eye to criticism or correction, producing a critical estimate.

Contributions seem to follow Grice's (1975) maxims of relevance and truth as a norm. Throughout the *body* the e-responder expresses a course of reasoning aimed at demonstrating the truth or falsehood of particular assertions in the research article. In this course of reasoning the reviewed research is often compared against scientific standards and available evidence. The *body* stresses the advancement of reasons intended to persuade others in the e-debate. It may involve discussion of conflicting points of view.

The *body* in the corpus of *e-RRRAs* (f=100; 100%) seems to be a compulsory move and has shown great rhetorical variability. The purpose of this move is to evaluate the RA features from the e-responder's viewpoint. Some of the RA aspects for revision were:

- The research methods. (The type of research used in the RA, the sample, whether current and relevant research is used)
- The utility of the research

- If the writing is easy to follow
- How could the study have been improved in the e-responder's opinion
- If the text appears to be subjective or biased

The *body* constitutes, in *e-RRRAs,* the core of the traditional evaluative activity which has characterized academic tradition in general and medicine in particular.

6.2.3.1 Social Acknowledgement

This study revealed that the *social acknowlegement* strategy in *e-RRRAs* entailed the recognition of another medical scientist's work in the form of a research article, the admission of its existence in the medical field, as a response to the peer's contribution. It may involve a token of appreciation or an expression of thanks and imply the recognition of the validity and the truth of their contribution or the authority of the particular medical scientist, or group of researchers. Nonetheless, it sometimes consists in a reference to the contribution of a particular scientist, which has called the e-reader's attention, which may entail criticism.

The purpose of this strategy is the admission, or outright rejection, of other scientists' work, by the recognition the fact that it has called the attention of, has been read and has deserved review and comment on the part of another member of the medical discourse community.

The norm governing these interactions is that, as medical science is a common endeavour, medical scientists must read other researchers' contributions to be aware of the new developments in the field to be updated. Hence, the

responsibility of accepting new knowledge in the medical field lies not only with the researcher and the *BMJ* journal board of editors –other members of the discourse community also have a say and they may check that the principles of the scientific method are followed closely, that there are no other alternative explanations for the results or that the account is precise and comprehensive, among others. This is a social process in which some participants observe aspects or details overlooked by others, complementing one another in the online context. Not responding may also be considered acceptable, it may signal implicit acceptance of the research article contents, and of the editorial decision to publish it.

E-RRRA responders tend to acknowledge the work by RA writers using different, and frequently embedded, elements. A *Social Acknowledgment* strategy is present in 66 *e-RRRAs* (66%); that is to say, it constitutes a conventional strategy. It reveals a wide range of realizations, among which the following are included: indicating contribution to the field, showing emotional reactions, the identification of the research article aspect or idea for review, qualifying the RA or its content, congratulating RA authors or thanking them for their contribution to science.

After providing their *e-RRRA* with a title, almost one third of *e-RRRA* responders began their *e-RRRA* with a selection of RA contents to then proceed to comment, or write their *e-RRRA.* They normally focus on a particular aspect of the RA. This probably aims at singling out the particular RA content under review from the varied *thebmj.com*. As illustrated below, this strategy has revealed variability in its rhetorical realizations:

Focusing on study results, to move on to signal lack	[*e-RRRA*007] **Low response rates generate considerable uncertainty** Editor – This study found that in infants who died from SIDS, the reported use of a dummy in the index sleep was 4.1%, in the 50% of eligible mothers who agreed to take part. The use of a dummy in the other 50% of eligible infants with SIDS is unknown [...]
Focusing on purpose/object of study	[*e-RRRA*012] **Case-control study is appropriate but the intervention needs more justification** Editor, **This is with respect to the study investigating the reduction in SIDS due to pacifier use**. Pacifier use has been associated with vast advantages as well as disadvantages.[...]
Identification of RA aspect for review	[*e-RRRA*053] **No standard PT treatment** I notice that **the PT intervention** is described as follows: "The participants in the physical therapy group received the routine physical therapy offered by the orthopaedic specialist clinic, including pelvic manual traction, spinal manipulation, thermotherapy, infrared light therapy, electrical stimulation, and exercise therapy, as decided by the physical therapist." This is problematic simply because the study variable becomes [...]

Also embedded, and frequently in combination with other strategies, almost one third of *e-RRRA* responders acknowledged RAs through the communication of emotions:

[*e-RRRA*054] **Bio-psychosocial model is required for patients with severe dementia** Editor, **I read with interest** the article "Effect of enhanced psychosocial care on antipsychotic use in nursing home residents with severe dementia: cluster randomised trial" by Fossey et al**. I was surprised that** despite some flaws in the design of the trail, the results were marginal with a very wide confidence Interval (0.5% to 37.7%). [...]
[*e-RRRA*082] **A regrettable decision made by the *BMJ* to publish this** **It was saddening to see** such as article published by one of the most esteemed medical journals in the world. As an American physician, I will still look to the *BMJ* as a resource for sound clinical information and literature reviews. After reading this article, I feel I will have to look elsewhere for pieces on geopolitical studies. [...]
[*e-RRRA*089] **The situation in the West Bank- Who is really to blame?** **I read with great concern** the article by Rytter et al on the humanitarian situation in The West Bank. While the situation is worrisome, several critical points must be made. [...]

The examples above reveal that the expression of emotions occurred in different contexts, and with other strategies. Excerpt [54] above exemplifies the expression of positive emotions elicited by the publication of an article in combination with

the identification of the particular article and author for comment. By contrast, excerpt [82] illustrates the e-responders rejection towards the publication of a particular article on *thebmj.com*. The last excerpt [89] exemplifies the e-responder's reaction to the particular situation described in the RA, to then proceed with criticism.

E-responders can also choose to begin their *e-RRRAs* signalling the e-RA authors' contribution to the field and/or what they had done.

[*e-RRRA*009] **The presumption of causality** Sir, The relative risk for associated factors should not be confused with the attributable risk for causative factors. Li and colleagues [1] evocatively **express the risk associated with sudden infant death syndrome (SIDS) & infant dummy use during sleep** as a '90% reduction in risk' which could be potentially misunderstood and brings unwarranted media attention to what otherwise is a very interesting paper.[...]
[*e-RRRA*046] **Accupressure & Physical Therapy Design Flaw** **The study by Hsieh, LL et al compared subjects with low back pain with treatment by accupressure or physical therapy**. [...]
[*e-RRRA*062] **Mobile phone use and risk of glioma in adults: case-control study.** Hepworth et al (1) **have conducted a case-control study to assess the risk of glioma in relationship to mobile phone use** in 966 cases and 1716 controls selected from general practitioners lists. They found no relation for risk of glioma and time since first use, lifetime years of use, and cumulative number of calls and hours of use. However they found an increased risk for tumour ipsilateral to the side most used, and a parallel reduction in the contralateral side. [...]

Other options for the *Social Acknowledgement* strategies have other forms such as congratulating, thanking and/or qualifying the e-RA and/or its content.

Qualifying	[*e-RRRA*005] **Dummy use and primary mode of death in SIDS** The paper's findings permit **far-reaching** and **important** considerations in SIDS. [*e-RRRA*0060] **Does amblyopia affect educational, health, and social outcomes? Findings from 1958 British birth cohort.** **This is a landmark study** and the authors *are to be congratulated on* what was obviously a major undertaking. However, in view of the fundamental questions this study may be seen to raise about the utility of amblyopia screening and treatment, it appears worth noting some mitigating factors:
Thanking (and identification)	[*e-RRRA*020] **The methods underestimated STI burden** **Thanks to Cassell et al** (doi/10.1136/*BMJ*.38726.404012.7c) who set out to describe the contribution of primary care to the diagnosis and management of sexuall transmitted infections, (STI) in UK. By restricting the study to major infections (gonorrhoea, chlamydia, non-specific urethritis, urethral discharge, non-specific urethritis/urethral discharge, genital warts, genital herpes, trichomonas), excluding syphilis, bacterial vaginosis, pelvic inflammatory disease (PID), and candidiosis, a form of selection bias could have lead to considerable under estimation of the burden of STI and the contribution of primary care in their diagnosis and management. [*e-RRRA*029] **interesting!** **Thank you for sharing** this very interesting finding. One of my residents once said that he advocated morphine injections, as opposed to tablets, because, "There's something about steel hitting skin and having a doctor say, 'This is going to make you feel better.' Injections simply work better than pills."
Congratulating	[*e-RRRA*018] **Didgeridoo: Interesting but unconvincing** I **congratulate** Puhan and colleagues for their interesting study on a novel treatment for obstructive sleep apnoea (OSA)1.[...]

6.2.3.2 Criticism

The data gathered in this study of *e-RRRA* rhetorical structure, revealed that the optional strategy of *criticism* (f=62;62%) was quite frequent in the corpus. It allegedly involved serious examination of the research article proper, together with an instance of critical judgment. Some *BMJ* e-responders opted for the expression of disapproval by pointing out faults and/or shortcomings, among others, in the research article. The purpose of this disapproval was to signal those negative aspects which had to be amended for the sake of medical science. Nevertheless this disapproval might also hide conflict of interests from opponents in the medical field or the presence and activity of competing researchers. Many e-responders opt for critisizing aspects of the RA; whereas the ultimate purpose of this activity might be to assure scientific truths are obtained appropriately, and relativizing the e-RA's contribution to the medical science, other factors seem to interplay in the complex medical context.

The strategy of criticism focused on the method and/or procedure, the report on the research, drawing conclusions, correct interpretation of findings or presence of alternative interpretations, absence of information in RA, the presence of confounding factors, limitations of the research, the epistemological basis of the research, choice of design, replicability, validity, generalizability and even the editorial board publishing decisions. In the example of criticism on report below the surveillance of Grice's (1975) maxims of avoidance of ambiguity and obscurity (manner) can be observed.

CRITICISM TO RA	
REPORT	[*e-RRE*002] [...]*The reporting in the abstract of this study is frankly misleading*. [...] [*e-RRE*066] [...] *We note that the numbers of interviewed cases are not constant*. In the abstract 966 cases are reported but in Table 2 numbers of tumour grade and side of phone use are given for 972 cases, [...]
METHOD	[*e-RRE*006][…] In this study *more than half of the study group were born to mothers of maternal age over 25* (it would be interesting to look at over 35 years of age, numbers). Finally the study group individuals had *a birth weight* of less than 2500 *grammes five times greater than the control group*. [*e-RRE*0012] [...] But being a cohort study, *there could be a potential possibility for "Hawthorne effect*" where in the intervention or the attention of the researcher in itself has the potential to cause altered favorable or detrimental behavior. [...]
CONCLUSION	[*e-RRE*064] [...] Hence the only analysis compatible with the natural history of the disease and exposure conditions showed a significantly increased risk. *But still the authors conclude:" This ...study found no increased risk of developing a glioma associated with mobile phone use..."* [...]. Authors point to the fact that the odds-ration for contralateral wxposure is below one and seem to interpret this as an indication for recall bias. *However they seem not to be aware that this is simply a consequence of their method of analysis and of the significant effect on teh ipsilateral side.* [...] [*e-RRE*090] [...] This research article, including its concluding statement: *"The reported delay in access to healthcare facilities is not in accordance with these principles."* appear to be politically motivated and does not contribute significantly to medical science. [...]
(INTERPRETATION OF) FINDINGS	[*e-RRE*024] [...] Of course, *the plastic feather could be an active intervention, but more likely the outcome of the plastic feather intervention was a placebo effect*.[...]
REVIEW/JOURNAL/EDITOR/ PUBLICATION	[*e-RRE*091] [...] However, *there is an error, which as editor, you should hacve spotted* [...]
CONFLICT OF INTERESTS	[*e-RRE*066] *We note that some of the participating universities and authors have received grants from the telecom industry*. Also *this study was heavily telecom industry funded*. Besides local industry grants in UK the Interphone study according to IARC is funded from industry with 3.5 million Euros, and from the European Union, 3.85 million Euros (E Cardis, personal communication). *The contract stipulated that the industry has the right to be informed about the results a maximum of seven days before the publication.*8 *Receiving grants from industry is by the International Committee of Medical Journal Editor regarded as "the most important conflicts of interest*".

In the second example, of criticism to method, it is the surveillance of the need of adequate evidence to make assertions what is stressed; the presence of confounding variables in the commented piece of research is observed by the e-RRRA writers, who indicate that the claims made in the original research lack the adequate evidence for following the Grice's (1975) Quality maxim "try to make your contribution one which is true". The criticism to drawing conclusions, (interpretation of) findings, reviewers and editors also follows the surveillance of this maxim. Finally, the criticism to conflict of interests seems to reveal the surveillance of the Quality maxim "do not say what you believe to be false" and implies that other interests operate in the context of medical science.

6.2.3.3 Indication of Effects

Our research revealed that 36% (f=36) of *BMJ* e-responders included the indication of positive or negative effects as an optional strategy; namely, the impact or effect the assertions made in the research article, could have either regarding medical knowledge and/or medical practice. The assertions in RAs (or those made by the e-RRRA writer), together with suggestions, proposals or the RA contents appear as a cause or agent which can produce an outcome or consequence. *Effects* could be either negative or positive, and could, therefore, serve the purpose of acting either in opposition or support of these assertions and claims. The norm here seems to be that, after the publication of a research article by the *BMJ*, e-responders could, discretionally, use effects to argue for or against their own or the article proposals.

> [*e-RRRA*004][...] *This may induce parents* who are concerned about SIDS (Sudden Infant Death Syndrome) *to buy and use a pacifier* even if they have not thought about this already.[...]
>
> [*e-RRRA*036][...] *This has major implications for Palliative care* in the NHS under the New General Practice Contract.[...] Should palliative care become *a service attracting extra-contractual payments?* [...]
>
> [*e-RRRA*061][...] ophthalmic professionals should engage in work delineating the safety risks associated with amblyopia, *so that affected individuals are advised more informatively and occupational preclusions are more firmly evidence-based.*
>
> [*e-RRRA*071][...] Although certain evaluations may be subjectivist, taken together, these movie reviews help consumers to make up their minds which movie to go to, *peer-review reports help editors to decide whether an academic paper is valid and helps authors to improve it*. On the same level, *website evaluations – whether conducted by the developer himself, or by third parties- help developers to improve their sites* [...]

Occasionally, a cautious attitude is shown towards the research article contents, before these are to be fully considered accepted knowledge. Their purpose is, hence, to foresee or anticipate the impact or the acceptance of research article assertions (or their own) could have in the medical field and medical practice. This helps social purposes such as the fostering of acceptance or its prevention.

6.2.3.4 Indication of a problem

The data yielded by this study show that in 23% of *e-RRRAs* (f=23), *BMJ* e-responders indicate *problems* related to, or likely to develop from RAs. These assertions included, in particular, research articles or the procedures followed by the researchers, among others. This optional strategy includes the identification and communication of matters, or questions, to be considered, solved, answered,

or overcome; issues which are difficult to deal with, in general. These questions or subject matters may involve doubt or uncertainty of difficulty. They constitute statements, questions, difficulties and states raised for consideration or solution and they are a source of difficulty, complication or dilemmas. This strategy serves the social purpose of the identification of areas, which may signal that research article authors have not followed correct procedure or protocol in their research method, or signal faults when inferring the explanation of results. This strategy may, as well, indicate incorrect inference paths or that research assertions may eventually place the community into difficulties, complications or deadlocks. This may, in some cases, affect the reliability or validity of a particular research article's results and/or conclusions, which signal the presence of obstacles in the community's acceptance of the particular piece of research. The following excerpt illustrates a common problem faced by the medical community in general, the evaluation of internet tools and how one of its members' initiatives contributes to helping solve this problem:

> [*e-RRRA*016][...] Dear editor, the internet has proved to be a powerful tool for providing medical information to the general population. *However trying to assess just how valuable a tool is-has proved difficult.[...]*We have have as of 2nd February 2006 launched another type of decision aid for parents about immunising their children – based on a qualitative research study. This is now up on the internet www.dipex.org/immunisation. [...] *Evaluation of the website will include the questionnaire available on the site for parents to fill in; along with how the site is used in terms of hits and visitors. [...] The site will also be used for training health professionals by prepared teaching packages using parents' views expressed on the site. [...]*

This may also make both researchers and the community aware of and help overcome difficulties and find better, alternative, solutions or pathways. The norm here is that medical scientists can indicate problems for the better development of the medical field, it might hide competition or conflict of interests among researchers or groups of researchers.

6.2.3.5 Indication of a solution

The data generated by our study indicated that in 18% (f=18) of *e-RRRAs* the strategy of *indicating a solution* was present. As illustrated in excerpt [e-RRRA016] above, some e-responders opted for indicating solutions to the problems identified in relation to a particular *BMJ* research article. Throughout their *e-RRRA* they referred to the act or process of solving a particular problem, the method or alternative process for dealing with the problem, including the answer to a problem or the explanation for something relevant to the international medical community. This serves the social purpose of overcoming difficulties that both research article writers and the medical discipline may foresee or face. As a norm the indication or signalling of a problem is discretional and a good thing to do, something which is welcome and socially accepted within medical science and research.

6.2.3.6 Background Knowledge

This research reveals that 36% (f=36) of *e-RRRAs* include the reference to background knowledge as an optional strategy. Some *BMJ* e-responders include *medical background knowledge* for inference or comment in their *e-RRRA.* This *background knowledge* serves the purpose of acting as a reminder to the medical

community and helps the contextualization of further assertions. E-responders include a selection of ideas they held, considered relevant to the context, with or without citation; that is to say, they sometimes specify the source. Reference to *background knowledge* also serves as the grounds for further interpretations, argumentation or conclusions, which could support, contradict editorial claims and assertions, or add knowledge to the medical field. *E-RRRA* writers consider that, stemming from existing knowledge, their assertions could be made and, eventually be accepted as valid knowledge in the medical field.

> [*e-RRRA*006][...] Untreated viral and bacterial infection during pregnancy, smoking and drinking alcohol, all increase the risk of early miscarriage and increases the risk of trauma during birth procedure. The ultimate pathology of brain injury is death of he foetus or newly born.
>
> [*e-RRRA*038][...] In advanced cancer the procoagulant state is not temporary, as after surgery. Furthermore, progression of disease is also associated with worsening mobility, sometimes venous obstruction by tumour masses and sometimes poor hydration.

As illustrated in the excerpts above, the relevant norm here is that resorting to accepted, uncontested, knowledge is accepted as a contextualizing device.

6.2.3.7 Showing agreement or disagreement

Our study revealed that *BMJ e-RRRA* writers express their agreement or disagreement with the assertions put forth in particular research articles as a strategy. That is to say, they express accord, harmony of opinion, or disaccord. The purpose of this strategy is social in that it may indicate the expression of approval or disapproval to particular ideas or aspects presented in the research

article; namely, social support, by the editorial writer, helping the incorporation of the knowledge presented in the research article into the medical field.

In the corpus of *e-RRRAs*, only some show agreement with editorial authors (f=6; 6%), and explicit disagreement with editorial authors is scarce (f=3;3%). The excerpts below illustrate agreement with a proposed recommendation of profilaxis in a group of patients, and disagreement with a responder's consideration of the contribution by a group of researchers:

> *[e-RRRA039]* *I totally agree with authors recommendation of the VTE prophylaxis in this group of patients*, but I would like to point out few important facts *[…]*
>
> *[e-RRRA070]* *We respectfully disagree with Dr. Davison regarding both the importance of this topic and the novelty of our findings.* As clinicians, we often encounter patients who have been mis-informed by family and friends. […]

The low presence of this strategy can be interpreted as avoidance of explicit agreement or disagreement with research article authors' debate, in any case, agreement might have been favoured.

This strategy contributes to the purpose of revealing and making it explicit to the medical community that the *e-RRRA* responder shared ideas or aspects which are the same as or opposed to those stated in the research article. Eventually, agreeing may have contributed to establishing an idea as acceptable knowledge by the community, or a procedure or methodological step as best practice or correct by the medical community. Whereas, the expression of disagreement might create a dilemma, eventually leading to a discussion or evolve into an e-debate with the purpose of deciding whether an assertion or claim could be considered acceptable

knowledge (or not), or considered good medical practice by the medical online community, signalling controversy. Along similar lines, the low presence of disagreement or agreement may have acted as a face-saving strategy.

6.2.3.8 Consideration of evidence

This research reveals an option for the strategy of *consideration of evidence* (f=24;24%) in *e-RRRAs*, with several purposes. The following excerpt shows how *consideration of evidence*, illustrates how rapidly anal cancer is growing, for which there are no existing guidelines:

> [*e-RRRA*013][…]The impact that HPV screening has had on the rates of cervical intraepithelial neoplasia (CIN) is a topical issue and Legood et al pay much needed attention to this subject. The introduction of routine cytological screening has significantly reduced the incidence of cervical cancer. It is opportune therefore, to discuss within the same context, an embryological and pathological correlate namely the anal canal (with its transitional epithelium and columnar – squamousjunction) and anal intraepithelial neoplasia (AIN) respectively. Despite obvious similarities, anal cancer has not benefited from the same level of attention. *There are currently no existing guidelines regarding screening of this very similar and more rapidly growing pathological entity. The incidence of anal cancer has increased by almost 40 per cent in females.[2] There is a 26% genotypic concordance among concurrent Human Papilloma Virus (HPV) infections of the cervical and anal canals, indicating a common source of infection such as vaginal and anal intercourse with the same infected partner(s). [3] Women with cervical infection have a three fold increased risk of anal infection and up to 13% will be infected at both sites. [3] […]*

Among the uses of *consideration of evidence* in *e-RRRAs* I can include the review of state-of-the-art literature for the support of assertions, to function as the grounds for assertions, or as the grounds for counterclaiming.

[*e-RRRA*038][…]Editor,

> While we basically agree with the conclusions of Noble et al's refreshing survey of patients' views on receiving low molecular weight heparin (LWMH) in palliative care, we would also like to sound some notes of caution. There are reasons other than preciousness about patient comfort behind a reluctance to put many patients in palliative care onprophylactic LWMH.
>
> In advanced cancer the procoagulant state is not temporary, as after surgery. Furthermore, progression of disease is also associated with worsening mobility, sometimes venous obstruction by tumour masses and sometimes poor hydration. Therefore if it is logical to put patients on heparin while in an institutional setting, it would be illogical to stop this when they go home. *This presents one with dilemmas of long term heparinisation beyond the economic and manpower issues. The risk of heparin induced thrombocytopenia appears to be anything from a thirteenth (in a metanalysis of mostly orthopaedic series) (1) to a half (2) as common with LMWHs compared to unfractionated heparin, but still has to be kept in mind. Osteoporosis from long term heparin is estimated to cause painful vertebral collapse in 2-5% of patients with unfractionated heparin(3) and in a smaller proportion of LWMH recipients.* There is of course also the risk of bleeding if patients have visible or hidden ulceration.

The excerpt above illustrates how evidence is used to consider the reasons against the usage of LWMH (Low Weight Molecule Heparin) in palliative care in *e-RRRAs*, serving as a support for a warning.

[*e-RRRA*013][…]*The Jewish American Medical Project reported in March 2005 that the Israeli army not infrequently used ambulances to transport troops, in violation of the Geneva Convention* (1)

This last excerpt illustrates how evidence is used in support of an assertion made in different *e-RRRAs* in a debate on effects on health of armed conflicts. The examples above may imply that some e-RRRA authors try to make their contribution one that is true -Grice's (1975) Quality maxim– and cite the evidence their assertions are

based on to make it explicit to the community that they do say that for which they lack the adequate evidence.

6.2.3.9 Reference to personal experience

The data gathered in my investigation reveal that some *BMJ* e-responders make reference to their own experience (f=12;12%) as doctors or researchers. Hands-on experience, medical practice, seem to be recognized as a source of knowledge and knowledge modification. The purpose of the reference to e-responders' experience appears to serve as the grounds for further reasoning or assertions, which may eventually support views opposing or supporting those of the online research article. To be precise, the norm here might that experience can be referred to discretionally as long as it is relevant to the context. The following excerpt recalls a doctor's experience, in which acknowledgment is made of a resident's words, supporting the usage of injections in a discussion on placebo effects.

> *[e-RRRA029*] […] *One of my residents once said that he advocated morphine injections, as opposed to tablets, because "There is something about steel hitting skin and having a doctor say,'This is going to make you feel better.' Injections simply work better than pills […]*
>
> *[e-RRRA069] […]My own (admittedly anecdotal) experience shows that there remains avast amount of ignorance when considering rarer conditions. Between 2001and 2003 I attempted to recruit hypoadrenal women for a study looking into adrenal hormone replacement. As the incidence of these conditions is very rare, I resorted to advertising for subjects on two websites – 'self helpgroups' for hypoadrenalism (after this had been approved by the ethics committee). I managed to recruit sufficient numbers for the study, but kept myself enrolled to check on progress amongst my volunteers until mid 2005. It was very surprising to see the depth of inaccuracy and distinct lack of*

> *knowledge amongst the people who posted on the sites. I refused to be drawn into discussions, as it became very obvious that I would have ended up being the 'group doctor', which I had no intention of becoming. Indeed, the one person on those sites who seemed to be giving the most information (not always well informed) was a senior haematology laboratory technician whose wife was hypoadrenal. Thus he was the authority that people deferred to as he was in some small way 'medical'.*
>
> *Furthermore, from personal experience and that of my colleagues, the ever increasing band of 'informed' patients who come to clinic armed with items they 'found on the web' that vary from wildly inaccurate to frankly amusing suggests that many people refer to the web, but that an awful lot of nonsense is to be found there.[…]*

The doctor's experience above illustrates and supports the idea that, innacurate information about especially rare diseases can be found on the internet. His experience extends to that of his colleagues in their clinical practice.

6.2.3.10 Own Related Research

My study reveals that some *e-RRRAs* (f=8;8%) include reference to, or description of, their own research. This strategy appears to be governed by the norm of relevance; namely, they constitute relevant research in the particular research article or area of knowledge raised and discussed in the *e-RRRA* debate. Despite the fact that their main purpose is adding knowledge to the particular field, and/or informing the e-community on recent developments in the area, other purposes like self-promotion at a worldwide level, or marking out a research territory may also be present. The following excerpt illustrates the case of using an author's own research to contribute to knowledge in the medical field, presumably partial results, even before it is published:

*[e-RRRA021] […]*We read with interest the article by J A Cassell et al (1) describing the increasing role of general practice in the diagnosis and treatment of sexually transmitted infections. Chlamydia is the commonest sexually transmitted infection (STI) in the UK(2) and *we recently carried out a study investigating the management of cases of chlamydia diagnosed in primary care.*

We looked at cases of Chlamydia trachomatis infection referred to a genitourinary medicine (GUM) clinic with a positive test from primary care. Management prior to referral was assessed including treatment given, contacts notified and contacts treated. Additional benefits of referral were then assessed including additional STI and non-STI diagnoses and additional contacts identified, notified and treated.

The implications of inadequate management of chlamydia infectionshould not be underestimated. However, *in our study the majority of cases were treated appropriately prior to referral and contact tracing had been initiated. Referral infrequently identified additional STI diagnoses and lead to few additional contacts being treated.*

[*e-RRRA*037] […]Dear Editor:

As Gomes and Higginson suggested, identification of factors thatinfluence where terminally ill patients with cancer die is complicated.(1)

In 1981-1982, a study of 13 105 adult (15 years and over) deaths in three different Cuban provinces was carried out by our group. It was found that only 27.0% of adult deaths due to malignant tumours ocurred outside hospitals in Ciudad de La Habana, a western province which includes our capital city; but 60,2% in Cienfuegos, in the center and southern part of the island; and 58.2% in Las Tunas, in the eastern side of the country. At that time, persons who died at home due to cancer: a) were older than hospital ones; b) were less frequent in urban areas; and c) there were no differences by sex. (2)

In a second research, we studied adult mortality in the same three Cuban provinces, during 10 years, since 1990 to 1999. In that period, deaths due to malignant tumours were 36 999 in Ciudad de La Habana, (19.3% of all deaths); 5 269 in

> *Cienfuegos (19.9%); and 5 820 in Las Tunas (21.6%. The mean ages were 67.9±14.6 years, 67,9±15.9 years and 66.1±16.6 years, respectively. In spite of very similar proportion of deaths and mean ages, the place of death where patients with cancer died among these provinces, were not so, again. Only 28.3% died at home in Ciudad de La Habana. This proportion increased to 61.8% in Cienfuegos, and was 34.4% of deaths due to cancer occurred in Las Tunas. (3)[...]*

The example above illustrates how the reference to one's own published research has several purposes; simultaneously, showing agreement with RA authors, acting as a reminder and providing the international community with national-based news.

6.2.3.11 Signalling Gap

This study shows that some *e-RRRAs* include *signalling gaps* in the area covered by RA debate. These gaps consist in the identification of vacuums of knowledge, lack of knowledge, underresearched aspects in the community. This identification contributes to the purpose of making the community aware of those aspects as well as indicating venues for research. This aids in the development of the medical science and contribute to strands of research. In this sense it serves social purposes. The following excerpts illustrate gaps in a RA debate on the operational concept of placebo and in a debate on international treatment modalities for Low Back Pain:

> [*e-RRRA*022] […]*There is considerable doubt as to whether the Streitberger needle is a true placebo. This assertion has never been unequivocally proven* [...] No-one has yet defined a true acupuncture placebo satisfactorily.
>
> [*e-RRRA*050] […]However, *the optimal modalities* may vary from country to country and *need to have evidence-based datato support* given

> the variability of different treatment modalities in different countries [...]

The norm here is that the identification of gaps is a welcome behaviour which helps the advancement of medical science worldwide.

6.2.3.12 Situation

A closer look at the data from our research show that the *situational strategy* is present in 31% (f=31) *e-RRRAs*. It consists in the delimitation of a context, usually by means of a geographic reference, an event or an initiative, faced by the community. The following excerpt illustrates how the situation in Wales is not reflected in the NHS current cytology screening program:

> *[e-RRRA014] Policy in Wales is three yearly screening from 20 to 64 whichallocates 14.7 routine smears to a woman/lifetime of 44 years and about518,228 Women participate.*
>
> *There were at least 16,363 colposcopies in Wales in 2004/5, of which82% (13,418) are directly generated by the screening programme suggestinga lifetime colposcopy use of 1.14.[...]*
>
> *[e-RRE071] [...]Yes, there is clearly inaccurate information on the Internet, and yes, there are people out there (professionals and laypersons) using several methods to correct this information, be it through responding to false claims, be it through narrative reviews, collections of "trusted" links, rating systems or filtering systems. [...]*

The excerpt above illustrates the general situation of the presence of at times innacurate medical information on the internet. Some *BMJ* e-responders included the provision of national or regional information, news, or research as a strategy in their *e-RRRAs* for further comment or interpretation. This strategy is specially favoured by the international *BMJ* online context as it facilitates news being

disseminated worldwide at a faster speed than printed journals. Apart from the social purpose of the provision of news of developments in other countries, in this case it serves the purpose of bringing into the debate relevant information on other populations which may eventually support or contradict RA claims and assertions.

6.2.3.13 Question Raising

The data gathered in this research showed that 30% (f=30) of *e-RRRAs* included *questions*. *Questions* consisted of (interrogative) sentences or phrases for eliciting information or evoking a response, although they were sometimes used rhetorically to be answered in an argument or to throw doubt about the RA assertions or methods among others. These *questions* could be addressed to a person, the RA writer (s), the board of editors or the wide *thebmj.com* community. In the following excerpt the question is used to throw doubt on the appropriateness of the choice of design in a RA.

> *[e-RRRA012] […] So it raises a question whether a case-control study performed by these authors is suitable for this situation than a cohort study. […]*
>
> *[e-RRRA019] […]* Also, unlike tuba players, clarinetists use circular breathing (a technique that takes many months to master). *What is the prevalence of UERS/OSA in clarinet players?*

In the example above the question develops easily to signal a matter of interest to those concerned with obstructive sleep apnoea in clarinet players. The excerpt below raises a question about the implementation in a context of the results of a RA which, the author after a resorting to his own experience, answers:

> *[e-RRRA059] […]* Fossey et al (1) have assumed that training and support of care homestaff would reduce the use of neuroleptics in nursing

> homes. *But what about the under funded and under staffed NHS services where the staff tries to solve the manpower crisis by chemical means?* I remember very well that a couple of years ago when I was a junior doctor one of the senior nurses called me and gave an option to either hold the hands of a Day Hospital patient who may get agitated or prescribe an anti psychotic asthey were short of staff. I believe that such studies may have academicvalues but *in real life good old thinking by powerful staff to solve the crisis by magic pills will continue to prevail*.

Other purposes included posing questions for examination or analysis or making proposals to be debated on. E-responders generally follow the norm that they question RA contents and/or writers at their discretion, as it is accepted behaviour in the medical cybercommunity.

6.2.3.14 Question Answering

As illustrated above, our study indicates that, in the *BMJ* PPORD context, *question answering* constituted a discretional written reply to a question previously posed, written as a return or in response. In our corpus of *e-RRRAs question answering* was present in 5% (f=5) of them. Generally, medical scientists may question any assertion made, also with rhetorical purposes, that is to say, to make assertions about RA related aspects.

6.2.3.15 Clarification

This study shows that the strategy of *clarification* was present in 14% (f=14) *e-RRRAs*. *BMJ* e-responders include a clarification on a controversial aspect related to or contained in the RA or its subsequent debate. This amends RA controversial assertions, preventing misunderstandings and/or avoiding confusion in the

medical community. It is done at the e-responder's discretion when they think it necessary or suitable to the context of the PPORD.The usage of this strategy by e-RRRA authors seems to follow Grice's (1975) Manner maxims 'be perspicuous' and 'avoid obscurity of expression and ambiguity'. The following excerpt illustrates how the strategy of *clarification* is used to counteract criticism with respect to a method or the presence of confounding factors:

> *[e-RRRA047] […]* Thank you for your concern about the type of previous treatment shown in Table 3 regarding "satisfaction with previous treatment". *The two points raised by Dr White are not problems and do no exist in our study.*
>
> *The first point, "*Thus the physical therapy group appears to have received the same treatment in the study as they has previously received and evidently failed... had prior unsuccessful experience with one of variables in the study" is based on his premise. *Participants in our study were recruited from existing patients who visited the orthopedic clinic for the service physical therapy for their persistent and/or recurrent low back pain (LBP), in other words the physical therapy is still effective to them.* [...]
>
> *The second point*, "To compare acupressure to physical therapy in subjects with low back pain neither group should have prior experience .....", is pertinent to the selection criteria. *As mentioned before and clearly defined in methodological section, one of our eligible criteria for study participants was based on those who had chronic low back pain for more than four months.*[...]
>
> *[e-RRRA047] […]* Dear Editor,
>
> We thank the reader for the interest in our manuscript "Early determinants of physical activity in adolescence: prospective birth cohortstudy". *We have run analyses stratified by sex and birthweight assuggested by the reader. There was no evidence of interaction between anyof these variables and the exposures*

> *evaluated in the paper. All P values for interaction were above 0.10, and this was not explained by lack of power because each sub-group had, at least, 400 subjects.*

Again, this last example illustrates how a test on the possible influence of confounding factors had been carried out by researchers prior to the research described in the RA into determinants of physical activity in adolescence, hence, not affecting its results.

6.2.3.16 Counterclaiming

The strategy of *counterclaiming* was present in 11% (f=11) of the *e-RRRAs* in the corpus. Some *BMJ* e-responders included assertions which opposed those in the reviewed RA.

> *[e-RRRA031] […]* In their rebuttals to letters about their study, Kerrand Kaptchuk's opinions about placebo [9] and acupuncture [10] and appealing to the doctrine of falsifiability [10, 9,] *do not change this fact.*

> *[e-RRRA078] […]* Some contributors have suggested that the association between self-harm and Goth subculture may be accounted for by other factors. However *this is unlikely*, since we adjusted for the strongest and most relevant correlates of self-harm found in other studies of young people. [...]
>
> It has also been suggested that by adopting a quantitive approach we may have missed contextual factors (this is obviously true of any non qualitative study), and that the high rate of self-harm found among Gothsis a form of decoration, analogous to body modification. *We dispute this on two grounds. Firstly*, since those who self-harmed were asked why, we know that the majority, regardless of youth subculture did so to relieve anxiety, anger and other negative emotions. *Secondly*, while cutting could be interpreted as some form of subcultural display, such an argument is difficult to sustain in relation to attempted suicide. [...]

As illustrated in the excerpts above this indicates that the e-responder had a different view to that of claims and assertions in the RA, and it is often justified by means of reasoning or supported by references.

6.2.3.17 Words of warning

Our study reveals that some *BMJ* e-responders (f=7;7%) included *a word of warning* in their *e-RRRA*. This optional strategy consisted in an attempt to urge prudence in relation to how current state-of-the-art knowledge was developing to avoid negative effects. *Words of warning* seem to constitute an attempt to change or divert the direction of medical scientists' actions or attitudes. Its social purpose is to modify or direct the pathways of medical scientists' activities in terms of thoughts and actions or to urge prudence. The norm here seems to be that it is discretional for medical scientists to warn or caution other medical specialists and urge them not to work in a particular direction.

Words of warning within the medical community might be interpreted as entailing a call for change in the medical community's attitude towards particular matters so as to prevent facing negative effects.

> *[e-RRE038] [...]* While we basically agree with the conclusions of Noble et al's refreshing survey of patients' views on receiving low molecular weight heparin (LWMH) in palliative care, *we would also like to sound some notes of caution. There are reasons other than preciousness about patient comfort behind a reluctance to put many patients in palliative care on prophylactic LWMH.[...]*

> *[e-RRE096] Sacrificing quality of science for the sake of political affinity is dangerous and can lead to grave consequences.* In addition to its unparalleled barbarity, prioritizing ideology over scientific integrity had been a fundamental tenet of Nazi science

In the first excerpt above, the strategy aims to warn against the posible negative effect that putting patients in palliative care on prophylactic LWMH may have in clinical practice. This last example warns against political influence in science.

6.2.3.18 Acknowledging limitations

The data yielded by this research revealed that the strategy of *acknowledging limitations* was present in 6% (f=6). This strategy was implemented mostly by responding RA writers and implied the recognition of some limitations in their own research. The following excerpt illustrates how the researcher acknowledges that his results are not applicable to all patients suffering low back pain.

> *[e-RRE047] [...]* However, we reiterated, as our focus on population is targeted at chronic LBP, *the inference or results made from our study may not be applied to newly diagnosed LBP or untreated chronic LBP as addressed by Dr Wright. [...]*
>
> *[e-RRE070] [...]* As stated in the paper, "*[o]ur study was limited by the fact that a single reviewer determined the statements that might be false or misleading. We may therefore have missed some false or misleading statements.* … Furthermore, *reviewers were not blinded to the study hypotheses*." We agree with Dr. Davison that this may have introduced bias, as acknowledged in the discussion. *Indeed, if there were additional false/misleading statements that were missed, this could have affected the results.In ongoing studies, we are continuing to test the self-correction hypothesis in other domains and using multiple independent reviewers. [...]*

The researchers in the example above, reiterate the acknowledgment of the limitations of their study, and the possible presence of confounding factors in their research and indicate how they are going to allow for their control in future research.

6.2.3.19 Call for change

This study revealed that some *BMJ* e-responders included a *call for change* in their *e-RRRA* (f=40;40%). This strategy entailed an appeal to the community, an exhortation to modify the current state-of-the-art regarding knowledge, actions or even attitudes. A *call for change* contributes to the social purpose of trying to modify or direct the pathways of medical scientists' behaviour in terms of thoughts and actions. The norm here seems to be that it is discretional for medical scientists to make appeals to other medical specialists for these purposes. This optional strategy emphasized the nature of medicine as social scientific endeavour. *E-RRRA* responders included *calls for change* in medical actions in the form of advice (f=8;8%),urge (f=11;11%), need (f=4;4%), suggestion (f=11;11%), prediction (f=3;3%), hope (f=3;3%) and request (f=1;1%). This is illustrated in the excerpts below.

> *[e-RRE012] Hence investigations and research into an intervention or device at positioning the kid in the supine position should be carried out rather than utilizing other easier but destructive forms of intervention. [advice]*
>
> *[e-RRE057] A systemic view into exploring this opportunity and extending the role of the mental health services for older people to improve the quality of care for this already vulnerable and stigmatised group suffering from dementia is called for. [urge]*
>
> *[e-RRE042] Thus, the emphasis by most BP management guidelines calling attention to the need for more aggressive treatment targets [3] cannot be stressed any further, given the disability-adjusted life-years and mortality associated with the global burden of hypertension.[need]*
>
> *[e-RRE073] Due to the severe future health implications of inactive life style during childhood and adolescence, and higher rates of success that incorporate fitness activities with socialization, the*

> *authors suggest organization of social physical exercise program models for people with ID, who constitute a population that is vulnerable to the health consequences of unhealthy lifestyles [suggestion]*

The presence of this strategy in the corpus of *e-RRRAs* seems to imply that both the RA writers and the *BMJ* readership as medical professionals and researchers are aware of the importance of being at the cutting edge in their field, at the always moving frontier between looking into past research and experience as well as looking forward into a better future of medical knowledge and practice. Action appeals, for example, urge the medical community to change their behavior in their medical practice or hospital on theoretical grounds or regarding research, they also appeal to the community to undertake particular research tasks.

The *call for change* strategy serves the purpose of "pushing the envelope" the shared model of reality (medical theory and practice) on a particular area held by the medical community; of urging the medical community to change their present model of reality, procedures and/or practice to jointly develop more accurate or precise "maps of the (medical) territory", to optimize medical practice in the light of new evidence or to stimulate research.

6.2.3.20 Interpretation

Our study revealed that interpretation as an optional strategy is present in 11% of *e-RRRAs* (f=11). This is illustrated in the example below in which the author compares a study against his own results in a debate on trial participants' views of receiving the results, and accounts for the differences found:

> *[e-RRRA017] [...] This may be explained by differences in the demographics of our patient population, our longer follow-up period and important differences in the background disease being studied. […]*

> *[e-RRRA068] [...] I think the authors, peer-reviewers, and editors of this piece were getting a bit carried away with their excitement about technology when publishing this paper or even citing complexity theory, chaos theory or self-organization [2] to describe the simple (= not complex!) phenomenon that when people speak or interact with each other (be it offline or online) people will correct each other.. […]*

This last example illustrates the interpretation provided by an e-responder of the RA authors' assertions, suggesting a certain degree of failure in the peer review process.

6.2.3.21 Implications

Drawing implications as an optional strategy was revealed as scarcely present in *e-RRRAs* (f=8;8%).

> *[e-RRE009] [...]Any calculation of attibutable risk in this study would be limited to the prevalence of exposure which for dummy users in the Californian infant population would be 23% (based on the control data).[…]*

The excerpt above illustrates *implications* in our corpus.

6.2.3.22 Conclusion

A *conclusion* is present in 38% (f=38) of the e-RRRAs in our corpus. A *conclusion* is a strategy which consists in a judgment or decision reached after consideration or deliberation. It may also consist in a deduction, a proposition or a resolution, concluded from one or more premises present in the *e-RRRA*. *Conclusions* in *e-RRRAs* have the purpose of supporting or opposing the contents of the RA under review, or present new knowledge. The presence of *conclusions* is a major factor in the construction of the *e-RRRA* author's viewpoint in the

virtual arena. The norm here is that reaching specific conclusions is at the discretion of the *e-RRRA* writer.

In their *conclusions,* e-responders try to emphasize their main points of their argumentation regarding the RA author's work; this is sometimes preceded by a synthesis of the RA contents selected for comment in his/her critique; sometimes relating the RA author's work to the e-responder's own knowledge or experience.

> *[e-RRE012] [...] Although the use of pacifiers could potentially reduce the incidence of the kid going to the prone position, the disadvantages and the after effects of the use of pacifiers have to be considered for healthy public health intervention. [...]*
>
> *[e-RRE061] [...] Thus, on average, as shown in our study, it is difficult to identify any significant impack of amblyopia on education, health and social outcomes or occupation.[...]*

The excerpts above, illustrate the conclusions reached after an e-debate on the use of pacifiers to avoid sudden deaths in newborns, and the reiteration of conclusions of a study that has fostered a debate on the effect of amblyopia.

6.2.4 Closure

This research showed that few *e-RRRAs* include a *closure* move (f=4;4%), in most of them it is absent. The purpose of the closure move is to bring the review, signalling the *e-RRRA,* to an end. The norm here is that including a *closure* move in the *e-RRRA* is at the discretion of the author. It is realized through a single strategy, *polite ending.* The most frequently used expression is *Yours sincerely*. This *polite ending* is a letter-like strategy, whose presence supports the idea that *e-RRRAs* are online emerging subgenres that stem from the epistolary tradition.

6.3 Chapter Summary

Chapter six comprises the description of the results of my qualitative and quantitative study of *e-RRRAs*. *E-RRRA* organizational structure has been identified in terms of moves and strategies, making use of the concept of purpose. Norms governing e-responses have been inferred. Chapter seven will refer to the conclusions drawn from my study of *e-RRRE*s and *e-RRRAs*.

CHAPTER 7.

THE STRUCTURES OF ELECTRONIC RAPID RESPONSES ON *thebmj.com*

7.1 Introduction

Chapters 5 and 6 have offered a corpus based description of *e-RREs* and *e-RRRAs*. The generic structure of *e-RR* types in terms of moves has been described, and their constituent elements in terms of strategies have also been identified and quantified. Purposes of *e-RREs* and *e-RRRAs* in the PPORDs have been identified and the frequency of each purpose has been registered. This chapter puts these findings together, makes use of relevant literature for comparison and offers answers to the following research questions:

- Is there an association between *e-RR* type and the range of purposes identified per *e-RR* type in the PPORDs?
- Is there an association between *e-RR* type and the identified structure of *e-RRs* in terms of moves?
- Is there an association between *e-RR* type and the identified structure of *e-RRs* in terms of strategies?

7.2 *E-RR* purpose in the *BMJ* PPORD

Purpose lies at the heart of the discussion on *BMJ* PPORD. Therefore, so as to find out whether there is an association between *e-RR* type and the range of purposes identified in the PPORD a Chi square test has been used. Table 7.1. summarizes the registration of our data in terms of frequencies.

	E-RRAS	**E-RRES**	**$\chi 2$**
SUPPORT	28	66	
OPPOSITION	61	30	
REPLY	11	4	29.189
	100	100	(*p value*=0.000000459

Table 7.1. Purposes per e-RR type

The Chi Square test reveals association between *e-RR* type and inferred purpose; $\chi 2$ (2 degrees of freedom)= 29.189 (*p value:* 0.000000459). There is significant evidence for an association, for interaction, between the *e-RR* type and *e-RR* purpose. A close look at the table suggests that *e-RRAs* include higher levels of *e-RRs* in opposition, and *e-RREs* included higher levels of *e-RREs* in support. The study of the differences observed has revealed that *e-RREs* in support were significantly higher than *e-RREs* in opposition (p=1.61 E-07); and that *e-RRRAs* in opposition were significantly higher than *e-RRRAs* in support (p=1.531 E-05). *E-RRE* writers might support editorials more often as a face-saving strategy, but also with social purposes such as the construction of knowledge, as many *e-RREs* complemented the editorial scope, and the possibility of being on good terms with a highly ranked expert in science and medicine. Editorial writers may often be gate-keepers, and may be likely to criticize *e-RRE* authors' research or offer advice or collaboration for research. *E-RRRA* writers may oppose research articles more often with social purposes, such as the surveillance for the compliance of scientific principles in medicine; however, this might probably signal the presence of controversy and/or competing interests in medical researchers, or groups of medical researchers.

7.3 Moves in *e-RR* type structure

The generic structure inferred in *e-RRs* namely *Title-Opening- Body- Closure* seems to be related to that of printed letters to the editor in medicine (Vazquez y del Árbol, E, 2015), although her study of medical letters to the editor suggests a progression of moves and steps which is not the object of this study, this still has to be studied in *e-RRs*.

Furthermore, to find out whether there is an association between *e-RR* type and the range of moves identified in our corpora, a Chi square test was calculated. Table 7.2 summarizes the registration of our frequency data.

MOVES AND *e-RR* TYPE			**$\chi 2$**
	e-RRAS	e-RRES	
TITLE	100	100	
OPENING	29	27	
BODY	100	100	0.063
CLOSURE	4	4	*(p value =* 0.9959).

Table 7.2. Moves and *e-RR* type

The test of association did not reveal association, interaction, between *e-RR* type and inferred structure in terms of moves; χ_2 (3 degrees of freedom)= 0.063 *(p value* = 0.9959).

7.4 Strategies in *e-RR* type structure

The identification of the constituent elements of *e-RRRAs* and *e-RRREs* types has yielded similar strategy ranges, but, due to their classification as optional, I cannot conclude a common pattern for *e-RREs* and *e-RRAs*, but, rather, that they are selection of ad-hoc strategies in both *e-RR* types, in the post publication review process. To find out whether there is an association between *e-RR* type and the ranges of strategies identified in *e-RRs* a Chi square test has been used (see table 7.1. below).

The Chi Square test has revealed that there is evidence for an association, for interaction, between *e-RR* type and the strategies obtained χ_2 (26 degrees of freedom) = 81.4732 *(p value* = 0.000000124). In other words, the frequencies found differ significantly from one *e-RR* type to another. A close look at the data has suggested that *criticism* is more frequent in *e-RRRAs* than in *e-RREs*, and that the resorting to *background knowledge* and *calls for change* are more frequent in the latter.

The study of the presence of strategies in *e-RR* types with a generalised linear model and Chi square tests has shown that the strategy of *criticism* is significantly higher in *e-RRRAs* than in *e-RRREs* (p=3.19 E-08); and that the strategies of *indication of problems* (p=1.92 E-05) and *call for change* (p=0.00046) are significantly more frequent in e-RREs. The remaining differences in terms of strategies between *e-RR* types were found to be not significant.

STRATEGIES AND E-RR TYPE			$\chi 2$
	E-RRAS	E-RRES	
Title	100	100	
Salutation	29	27	
Social Acknowledgement	66	74	
Agreement	9	23	
Background knowledge	35	53	
Evidence	24	44	
Criticism	62	22	
Indication of effects	36	45	
A word of warning	7	11	
Indication of problem	23	53	
Indication of solution	18	33	
Question raising	33	24	
Question answer	5	10	
Clinical practice	0	8	
Call for change	40	65	
Situation	31	49	
Counterclaiming	11	8	
Own experience	12	20	
Acknowledging limitations	6	0	
Case reference or repor	0	3	
Indication of a gap	3	23	
Clarification	14	12	
Own research	8	10	
Implications	8	5	
Interpretations	11	5	
Conclusion	38	39	81.4732
Polite ending	4	4	*(p value =* 0.000000124)

Our study found that *Titles* were an obligatory strategy in both *e-RREs* and e-RRRAs. This could be a result of *thebmj.com* interface, although they constitute a most useful aid which may help the e-reader decide whether to read a particular response in a PPORD or not. *Salutation* as a strategy turned out to be optional in both *e-RRRAs* and *e-RREs*, it also constituted an optional step in printed letters to the editor in medicine (Vazquez, 2005), although the presence is even lower in *e-RR* types. Its low presence suggests an option for the avoidance of this protocolized strategy by *e-RR* writers in the online context of the PPORD in medicine.

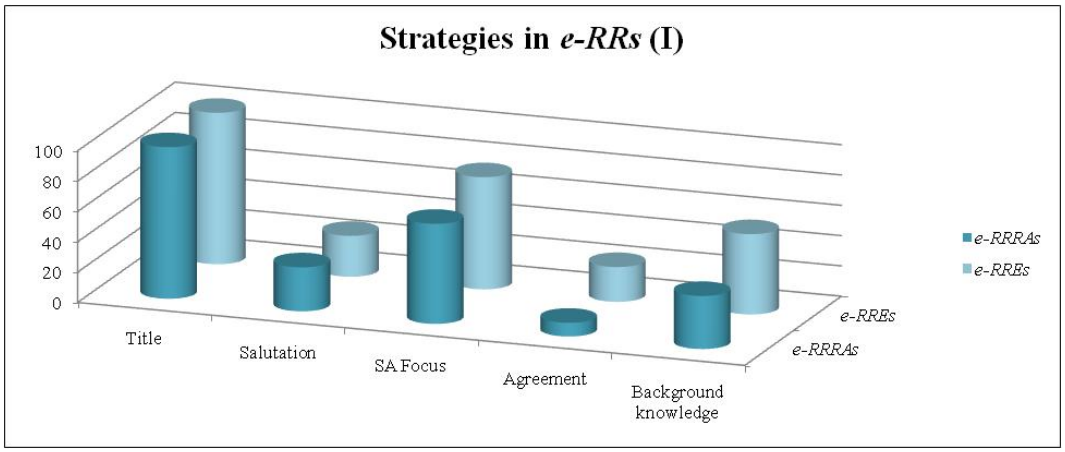

Figure 7.1. Strategies in *e-RRs* (I)

The *Social acknowledgment/focus* strategy was found to be conventional in both e-RR types. In some of its realizations it bears some resemblance with *Skelton's Move 1 Stating the relevance of the study*, in his study of medical research papers; nevertheless, the primary purpose of this strategy in *e-RRs* is to signal social acknowledgement to the contribution to science made by the reviewed paper.

Agreement/disagreement as strategies are hardly present in *e-RRRAs* and *e-RREs*, but slightly more frequent in the latter. Probably because editorials contribute a

new "map of a territory" *a*nd may favour the presence of explicit indication of dis/conformity by *thebmj.com* community.

Background knowledge as a strategy was optional in both *e-RRRAs* and *e-RRREs* although sligtly higher in e-RRRAs. *Background knowledge* has also been found as a stage in printed letters to the editor in medicine (Vazquez, 2005) and as a discourse function of Move 1 in Nwogu's (1997) medical research articles. These findings imply that the use of this strategy stems from the printed medical tradition.

Consideration of evidence was found to be an optional strategy in both *e-RRRAs* and *e-RRREs*, although it may bear some resemblance with the optional stage *Previous research* in letters to the editor in medicine, and with the discourse function of *Move 2 Reviewing Related Research* in medical research articles. In the corpus of *e-RRs consideration of evidence* has at least three other purposes; i.e. they serve as a basis for the support of assertions (evidence in support), the opposition of assertions (evidence against) and to act as a reminder of recent reseach for further reasoning.

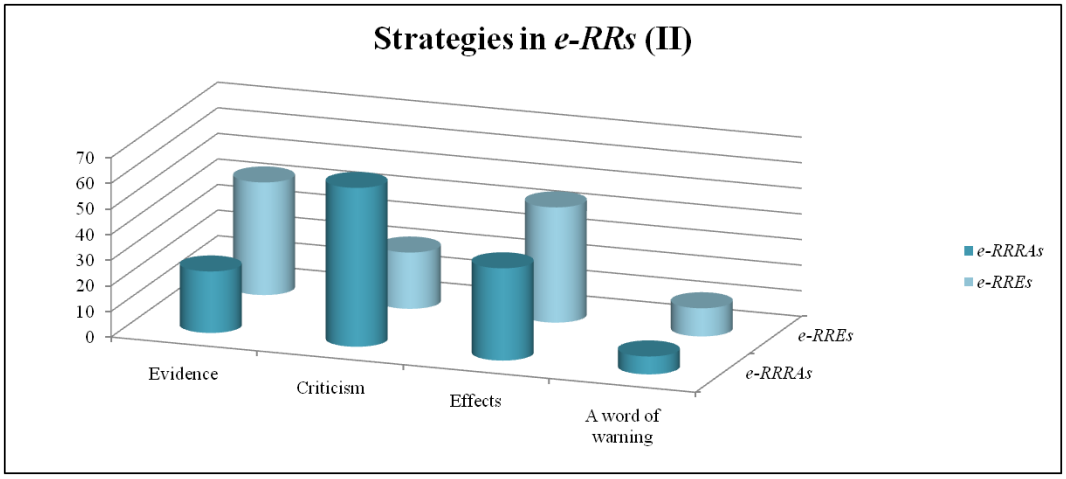

Figure 7.2. Strategies in *e-RRs* (II)

Criticism as a strategy was found to be optional in both *e-RRRAs* and *e-RREs* although it is more frequent in the former. Probably because *thebmj.com* participants read articles with an eye to criticism, so as to make sure scientific principles and protocols are followed closely, although this might imply conflicts of interests among researchers and/groups of researchers.

The strategy of *indication of effects* of editorial and research contents turned out to be optional in both *e-RRRAs* and *e-RREs*. The indication of positive effects served the purpose of arguing in favour of particular assertions, whereas the indication of negative effects, shortcomings, served the opposite purpose. The strategy of *Words of caution* is found in both *e-RRRAs* and *e-RREs* and its presence is low.

The *indications of problems* and *solutions* as optional strategies were present in both *e-RRRAs* and *e-RREs*. Their presence might signal the presence of problem-solution patterns (Hoey, 2001) found in academic English in the sample; although, sometimes, the expression of isolated problems serves the purpose of criticism, I

would argue here that the indication of a related problem, which has a solution, might sometimes entail a mitigated form of criticism.

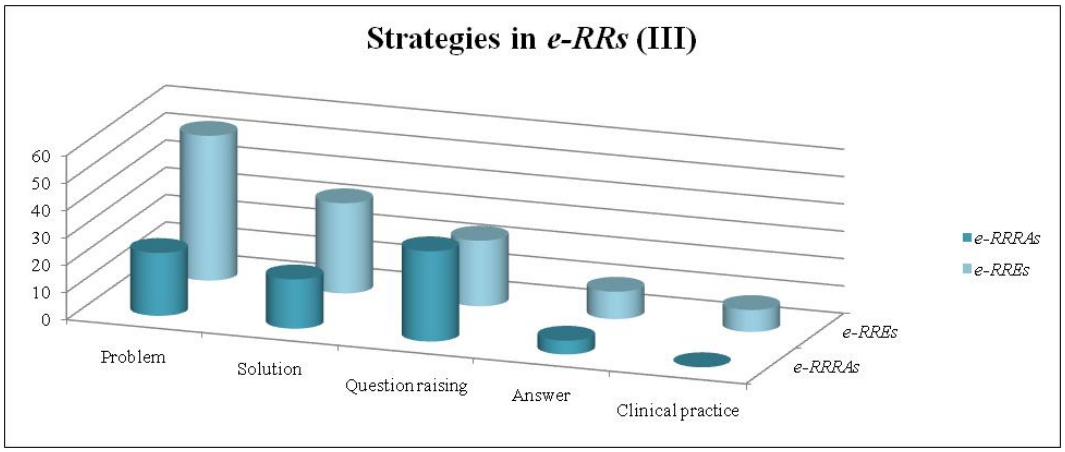

Figure 7.3. Strategies in *e-RRs* (III)

The presence of *questions* and, the less frequently, *answers* as optional strategies in both *e-RRRAs* and *e-RREs* was found to be optional. In our corpora one of their purposes is rhetorical, requiring an answer in a stream of reasoning. They also sometimes serve the purpose of questioning assertions, or throwing doubt on them. Other questions are left open for the community to answer, that is to say, their purpose is social.

The resort to *clinical practice* as a strategy was only found in *e-RREs*. In that corpus it is used as the grounds for assertion or comparison.

The optional strategy of *call for change* (f=40; 40%) was found to be present and frequent in both corpora, although slightly more frequent in *e-RREs (f=65; 65%).* Although one of its realizations (giving advice or recommendations) has been observed in *Move 15 -Discussion* of the medical research printed structure, in *e-*

RRs this strategy usually takes the form of an exhortation, serving to foster action in a particular direction, that is, it has a social purpose.

The optional strategy of *Situation* is less frequently present in *e-RRRAs* than in *e-RREs*. Although it has been found in academic English (Hoey, 2001), in our corpora it functions as a contextualization device for analysis, consideration of effects and identification of problems among others.

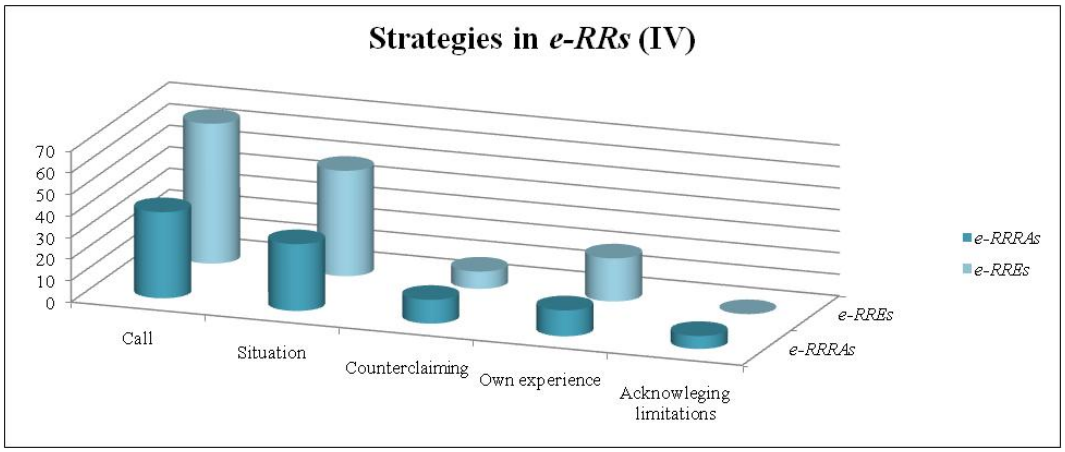

Figure 7.4. Strategies in *e-RRs* (IV)

Counterclaiming as a strategy was found to be scarce in both *e-RRRAs* and *e-RREs*. This might be interpreted as a face saving strategy, although its presence signals the presence of controversy in the online medical community.

Resorting to one's *own experience* as a strategy was found to be optional in both *e-RRRAs* and *e-RREs*, despite the fact that *own experience* was slightly higher in the latter. Experts use their experience as a source of knowledge and to support or contrast assertions.

Acknowledging limitations is present in *e-RRRAs* in reply, and absent in *e-RREs*. This suggests a different structure for replying *e-RRAs*.

The *reference to or description of case reports* is not very numerous in *e-RREs*, and absent in *e-RRRAs* although case reports are scarce in the medical literature. Where present, they are used to draw contrast with present state-of-the-art claims, and also to support or oppose claims in the PPORD.

The *indication of gaps* is less frequent in *e-RRRAs* than in *e-RREs*. As they signal gaps in current knowledge, venues for future research, this might be explained making reference to the competitive context which surrounds researchers.

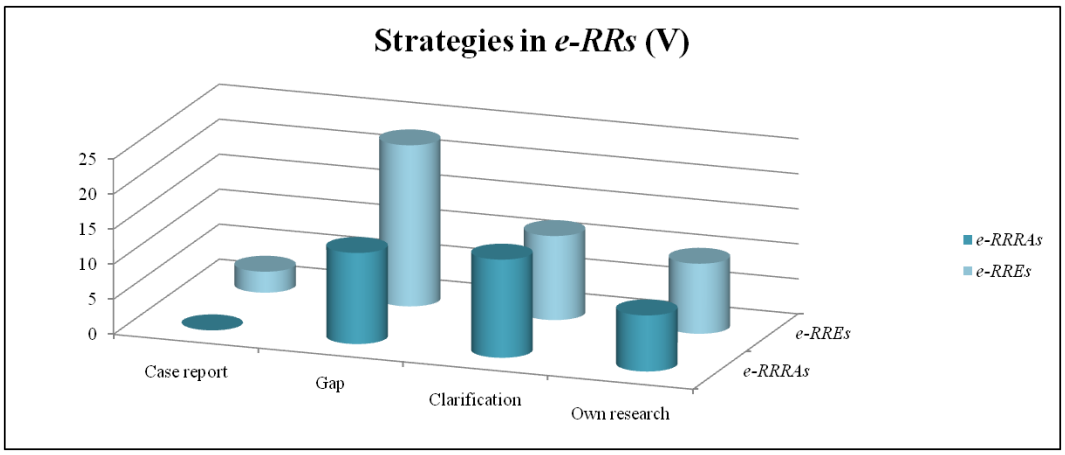

Figure 7.5. Strategies in *e-RRs* (V)

The presence of *clarification* as an optional strategy is found in both e-RR types with similar levels. It signals that Grice's (1975) maxim of clarity is followed by both types of *e-RR* writers and that they try to make up for misunderstandings, which may derive from a criticism to their reporting activity.

Resorting to one's *own research* is not frequent in *e-RRAs* and *e-RREs*, probably due to an avoidance of publishing preliminary results or of reminding of one's own publications when these are already available. At times it may imply self-promotion.

Implications and other *interpretations* were found to be scarce strategies in both *e-RREs* and *e-RRAs*, probably as a result of a wider focus on research activities.

Drawing conclusions is quite frequent in both *e-RR* types. They have been found in printed letters to the editor in medicine (Vazquez, 2005) and as Move 11 in the discussion section in the medical research article (Nwogu, 1997). This implies that it is an optional strategy after a stream of reasoning in typical medical situations related to the medical printed tradition.

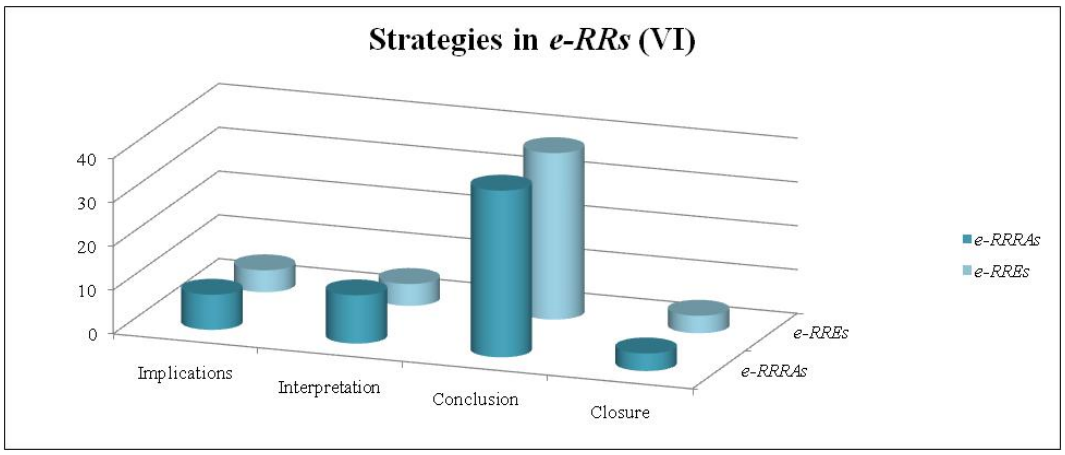

Figure 7.6. Strategies in *e-RRs* (VI)

The *Polite ending* strategy is infrequently present in both *e-RR* types. Its low presence suggests an option for the avoidance of this protocolized strategy by *e-RR* writers in the online context of the PPORD.

CHAPTER 8

CONCLUSIONS

8. Conclusions

This thesis is an attempt to characterize a selection of *thebmj.com* electronic rapid responses as an online emerging review subgenre (Hyland &Diani, 2009) in medicine. I have singled out electronic rapid responses to editorials and research articles in the case of a particular journal, the *BMJ*, to proceed to their quantitative and qualitative characterization in terms of text and sentence length, word range and rhetorical structure.

Chapter 1 is a presentation of the focus of this thesis in the wide internet context. Firstly, it places our study of electronic rapid responses in the overlapping of medical discourse, electronic discourse and e-health. Secondly, it frames electronic rapid responses in the context of the Open Access movement, recent initiatives in online peer review and the e-health revolution. Thirdly, it describes the background to the thesis, addressing the *BMJ* history, its review policy and its post publication review debates online. Fourthly, it makes reference to the object of the present study, electronic rapid responses to editorials and research articles. And, finally, it addresses its objectives, research questions, basic hypotheses and its design outline.

Chapter 2, entitled, *Review of the literature*, provides the theoretical frameworks for our study of *thebmj.com* electronic rapid responses; namely, the traditions of CMC and Genre Analysis, focusing on genre analysis in medicine. *Thebmj.com* electronic rapid responses have been characterized first as instances of Electronic English for Medicine (Posteguillo, 2003), and, then, as examples of "electronically-mediated-communication" (Baron, 2008) with an asychronous,

one-to-many nature. In addition, as medical professionals may use language to communicate in cyberspace, *e-RRs* have been positioned in the tradition of "electronic discourse" (Herring 1996).

The rapid expansion of the internet has provided the grounds for the emergence of new genres, and has proved to be a particularly interesting setting in which to study the use and development of genres. There is a high level of experimentation with potential genres (Crowston & Williams, 1997) among which *thebmj.com e-RRs* as electronic letters to the editor could be included. There is a printed referent for *e-RRs*, printed letters to the editor, so *e-RRs* might be said to constitute replicated digital versions of printed letters to the editor, although *thebmj.com* publication process might suggest otherwise as it is an online first publication.

Biber et al (1998) have served as a framework for our approach to corpus linguistics as they characterize it as empirical, making use of a corpus, making use of software and depending on both quantitative and qualitative techniques. Thompson's (2001) approach to genre analysis, has considered it as having the goals of identifying regularities of form, to relate these regularities to communicative purpose, to establish which features are obligatory and which are optional, and to understand what functions the genre plays within the medical community. Furthermore, this study has been framed by the ESP school, which views genres as text types defined by communicative purpose and formal properties in social contexts.

Chapter 3, *Methodology*, comprises the methodology employed to answer the questions in this study and to test my hypotheses. The methodology used in this

research has employed the methods in the tradition of corpus linguistics and Genre Analysis. In it I have emphasized our efforts at achieving a balanced and representative corpus to ensure the validity and reliability of procedures and results. First, my criteria for the selection of the corpus has been referred to; namely, the *BMJ* journal relevance, the representativity and the accessibility of the corpus. Second, the corpora for the quantitative and qualitative approaches to *e-RRs* have been described. Third, reference has been made to the software employed in the quantitative study, *Wordsmithtools 6 (Scott, 2015)*. Fourth, a description of the quantitative and qualitative analyses of *thebmj.com e-RRs* is offered. Fifth, the list of *e-RR* texts has been offered. Finally, I have used Swales' (1990) approach, Holmes' (1997) framework, Paltrige's (1994) contributions and Rasmeenin's (2006) classifications to carry out this research.

Chapter 4 *Quantitative results* has provided answers to the questions posed in chapter 1 in our quantitative study of both *e-RREs* and *e-RRRAs*. The average number of *e-RRs* per editorials and research articles has been calculated, followed by the average number of words per *e-RR* type, their average sentence length, and average sentence number. After that, the results of the analysis of the most frequent words in the subcorpora of *e-RREs* and *e-RRAs* have been included.

Our quantitative study of *thebmj.com* electronic activity, in terms of rapid responses elicited by research articles and editorials has revealed that, more often than not, editorials and research articles are contested by rapid responses on *thebmj.com*, and that, as an average, research articles received more rapid responses than editorials. The presence of *e-RRs* may serve to maintain

relationships as an interactional norm in an international medical context but it may also suggest the presence of controversy and competition in medical science. The presence of absent responses may signal consent to content published, a face-saving strategy, or a preference for remaining offline. In this sense missing responses can help reaching a consensus without the provision of a response. Secondly, the average sentence length of our corpora of electronic rapid responses seems to be similar to those found in previous printed medical literature. Finally, our study of the most frequent words in the corpora of *e-RREs* and *e-RRRAs* reveals the presence of medical items, research activities, the genre under review (editorial or research article) and a certain degree of personalization. This suggests that *thebmj.com* readers' electronic contributions reflect the practices of the online medical community, as found by Androutsopoulos (2006).

Chapter 5 *The rhetorical structure of electronic rapid responses to online BMJ editorials*refersto our qualitative analysis of the corpus of 100 e-Rapid Responses to online *BMJ* editorials as examples of expert-to-expert communication; that is, their purposes in the post publication online debate and their schematic structure have been studied. It has been assumed that *e-RREs*, as electronic letters to the editor, are one of the academic e-subgenres *thebmj.com* community uses worldwide, among other emerging electronic genres. The scope of the research has been narrowed down to e-Rapid Responses to online editorials. This way the process of inference of regularities has yield a characteristic schematic pattern peculiar to *e-RREs*, and the study has dealth with a manageable amount of information.

The e-*RRE* generic structure identified has yielded a *Title-Opening-Body-Closure* letter-like pattern with scarce presence of the protocolized Opening and Closure moves and obligatory *Title* and *Body* moves. This generic structure seems to stem from the epistolary tradition. The *e-RRE* structure analysis in terms of strategies shows that most strategies in *e-RREs* are optional, hence not concluding a common structure at a strategy level. *E-RREs* constituent elements have been identified, together with their presence in the subcorpus although further research is needed to discern *where* these elements can occur.

According to these findings *Titles* are an obligatory strategy in *e-RREs*. The *Social acknowledgment/focus* strategy was found to be conventional in *e-RREs*. Our study revealed an ad-hoc selection and low presence of the remaining strategies in the subcorpora; namely, *Agreement/disagreement, Background knowledge, Consideration of evidence, Criticism, Indication of effects, Words of warning, Indication of problems, Indication of solutions, Question raising, Question answers, Clinical practice, Call for change, Situation, Counterclaiming, Own experience, Reference to or description of case reports, Indication of gaps, Clarification, Own research, Implications, Interpretations, Drawing conclusions* and *Polite ending*.

Chapter 6, entitled *The rhetorical structure of electronic rapid responses to online BMJ research articles* refers to our qualitative analysis of the corpus of 100 e-Rapid Responses to online *BMJ* research articles as examples of expert-to-expert communication; i.e, I have studied their purposes in the post publication online debate and their rhetorical structure. *E-RRRAs*, as electronic letters to the editor

have been assumed to be one of the academic e-subgenres employed by the worldwide *thebmj.com* community, among other electronic genres. Our scope has also been narrowed down to e-Rapid Responses to online research articles. Consequently, the process of inference of regularities may yield a characteristic rhetorical structure peculiar to *e-RRRAs*, and the amount of information the research deals with is manageable.

Similarly, the *e-RRRA* generic structure identified has revealed a *Title-Opening-Body-Closure* letter-like pattern with scarce presence of the protocolized *Opening* and *Closure* moves and obligatory *Title* and *Body* moves which seems to stem from the epistolary tradition. The *e-RRRA* structure analysis in terms of strategies has found that most strategies in *e-RRRAs* are optional, hence not concluding a common structure at a strategy level. *E-RRRAs* constituent elements have been identified, together with their presence in the subcorpus although further research is needed to discern *where* these elements can occur.

The foregoing generic structure has been realized by means of a wide range of constituent elements, strategies, to which we refer hereafter.*Titles* are an obligatory strategy in *e-RRRAs*. The *Social acknowledgment/focus* strategy was found to be conventional in the corpus. This research revealed an ad-hoc selection and low presence of the remaining strategies in the subcorpora; namely, *Agreement/disagreement, Background knowledge*, *Consideration of evidence, Criticism, Indication of effects, Words of warning, Indication of problems, Indication of solutions, Question raising, Question answering, Call for change, Acknowledging Limitations,Situation,* C*ounterclaiming, Own experience,*

Indication of gaps, Clarification, Own research and Drawing conclusions. Implications, Interpretations, and *Polite endings* were also scarce.

Finally, Chapter 7, entitled *The structures of electronic rapid responses on thebmj.com* puts these findings together, makes use of relevant literature for comparison and offers our answers to our research questions regarding the presence of the associations between *e-RR* type and the range of purposes identified in the PPORDs, the identified structure of *e-RRs* in terms of moves, and the identified structure of *e-RRs* in terms of strategies. The most relevant contributions of this research are threefold:

> (i) Range of purposes of *e-RRs* in the PPORD. To find out whether there was an association between *e-RR* type and the range of purposes identified in the PPORD a Chi square test has been used. The Chi Square test has shown association between *e-RR* type and inferred purpose. A close look at the data has suggested that *e-RRAs* included higher levels of *e-RRs* in opposition, and *e-RREs* included higher levels of *e-RREs* in support. The higher level of *e-RREs* in support might be interpreted as a face-saving strategy, but it might also serve social purposes such as the construction of knowledge within the medical community and helping maintain relationships. Many supporting *e-RREs* complemented the editorial scope with further information. The higher levels of *e-RRRAs* in opposition might have social functions such as the surveillance for the compliance of scientific principles in medicine, but it also suggests the presence of competing interests in (groups of) medical researchers.

(ii) Generic structures of *e-RR* types. The generic structures of *e-RREs* and *e-RRRAs* in terms of moves have been inferred, yielding *Title-Opening-Body- Closure* patterns which seem to be related to those of printed letters to the editor in medicine (Vazquez, 2005). To find out whether there was association between e-RR types and the range of moves identified in our corpora, a Chi square test has been used. The test of association did not reveal association between *e-RR* types and inferred structure in terms of moves.

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(iii) Ranges of strategies in *e-RR* types. The identification of the constituent elements of *e-RRRAs* and *e-RRREs* types has yielded similar strategy ranges, but, due to their classification as optional, a common pattern for *e-RREs* and *e-RRAs*, cannot be concluded; but, rather, that they constitute a similar selection of ad-hoc strategies in both *e-RR* types, in the post publication review process. To find out whether there is an association between *e-RR* type and the ranges of strategies identified in *e-RRs* a Chi square test has been employed, as noted before. The Chi Square test has revealed that there is significant evidence for an association between *e-RR* type and the strategies obtained. In other words, the frequencies found differ from one *e-RR* type to another. A close look at the data, and their study through a generalised linear model and Chi square tests has suggested that *Criticism* is significantly more frequent in *e-RRRAs* than in *e-RREs*, and that the resort to *Indication of*

problems and *Calls for action* are significantly more frequent in the latter.

E-RR strategies seem to stem from the printed medical traditions and from the oral academic tradition and reflect the common practices of the medical community. *Titles* as an obligatory strategy in both *e-RR* types could be a result of the *thebmj.com* interface, and constitute a most useful aid which may help the e-reader decide whether to read a particular response in a PPORD. *Salutation* as an optional strategy in both *e-RRRAs* and *e-RREs* has also constituted an optional step in printed letters to the editor in medicine (Vazquez, 2005), although its lower presence suggests an option for the avoidance of this protocolized strategy by *e-RR* writers in the online context of the PPORD. The conventional strategy *Social acknowledgment/focus*, which bears some resemblance with *Skelton's Move 1 Stating the relevance of the study*, has been observed to have a different purpose, namely, to signal social acknowledgement to the contribution to science made by the reviewed paper. The infrequent *Agreement/disagreement* strategy was slightly more frequent in *e-RREs*; probably because editorials contribute a new "map of a territory" and may favour the presence of explicit indication of dis/conformity by *thebmj.com* community to help build personal relationships.

The *Background knowledge* optional strategy found in *e-RRRAs* and *e-RRREs* has also been found as a stage in printed letters to the editor in medicine (Vazquez, 2005) and as a discourse function of Move 1 in Nwogu's (1997) medical research articles which appears to imply that it stems from the printed medical tradition. The optional *Consideration of evidence*, which may bear some resemblance with

the optional stage *Previous research* in letters to the editor in medicine, and with the discourse function of *Move 2 Reviewing Related Research* in medical research articles, has different purposes in *e-RRs*; i.e., to serve as a basis for the support of assertions (evidence in support), the opposition of assertions (evidence against) and to act as a reminder of recent reseach for further reasoning. *Criticism* as a strategy was found to be more frequent *e-RRRAs*. This is probably because *thebmj.com* participants read articles with an eye to criticism, especially those in *e-RRRAs* in opposition. The presence of *Criticism* suggests that participants try to make sure scientific principles and protocols are followed closely, although this could also be interpreted as the presence of conflicts of interests among researchers or groups of researchers.

The *Indication of (positive or negative) effects*, or consequences, of editorial and research contents contributes to the purpose of helping make the e-paper fit into the medical field either supporting or opposing it. The presence of the strategy of *Words of warning* in both *e-RRRAs* and *e-RREs* may indicate that experts are concerned with and stay alert for directions the medical community must not take for the sake of health and medicine. The presence of *Indications of problems* and *Solutions* as optional strategies in *e-RRRAs* and *e-RREs* might signal the presence of problem-solution patterns (Hoey, 2001) in the corpora, even so the presence of isolated problems might signal criticism or serve the social purpose of signalling areas to be addressed by the medical community. We would agree that the expression of related problem-solution patterns might entail a soft form of criticism.

The presence of *Question raising* and, the less frequent, *Answering* as optional strategies in both *e-RRRAs* and *e-RREs* reveals social purposes like questioning assertions, being left open for the community to answer, in other cases their purpose was rhetorical in that *Questions* may require an answer in a stream of reasoning.

C*linical practice* as an optional strategy is only found in *e-RREs*, in which it functions as the grounds for assertion or comparison. The *Call for change* optional strategy was found to be present and frequent in both corpora, although slightly more frequent in *e-RREs*. However, one of its realizations (giving advice or recommendations) has been observed in *Move 15 -Discussion* of the medical research printed structure; in *e-RRs* the *Call for change* usually takes the form of an exhortation, serving to foster action in a particular direction, that is, it serves a social purpose and seems to imply that experts are concerned about and will indicate the directions the medical common endeavour may take.

The resort to the optional strategy of *Situation* was less often present in *e-RRRAs* than in *e-RREs*. *Situation*, which is found in academic English (Hoey, 2001), serves in the corpora as a contextualization device for analysis, consideration of effects and identification of problems, among others.

Counterclaiming as an optional strategy was found to be infrequent in both *e-RRRAs* and *e-RREs*, which might be interpreted as a face saving strategy, although its presence signals the presence of controversy in the online medical community. Resorting to one's *Own experience* as a strategy was found to be optional in both *e-RRRAs* and *e-RREs*, although slightly higher in the latter. It seems to imply that

experts use their experience as a source of knowledge and to support or contrast assertions. *Acknowledging limitations* is absent in *e-RREs* and present in *e-RRRAs*. This suggests the possibility of a different structure for replying *e-RRAs*.

The *Reference to or description of case reports* was scarce in both *e-RR* types and it is seldom found in the medical literature. Where present, they are used to be subjected to analysis, draw contrast with present state-of-the-art claims, and also to support or oppose claims in the PPORD. The *Indication of gaps* is less frequent in *e-RRRAs* than in *e-RREs*. As they signal gaps in current knowledge, venues for future research, their scarce presence might be explained making reference to the competitive context which surrounds researchers, although the higher presence of *Indication of gaps* in *e-RREs* might have the social purpose of indicating vacuums of knowledge for the community to be aware of and research.

The presence of *Clarification* as an optional strategy is found in both *e-RR* types with similar levels. This seems to imply that Grice's (1985) maxim of clarity is followed by both types of *e-RR* writers, who try to avoid misunderstandings, which may derive from criticism to their research reporting activity in the context of the PPORD. Resorting to one's *Own research* as a strategy is not frequent in *e-RRAs* and *e-RREs*, probably due to the researchers' avoidance of publishing preliminary results or their restraint from reminding readers of their own publications when they are already available. Alternatively, it may imply self-promotion. *Implications* and other *Interpretations* are found to be infrequent strategies in both *e-RREs* and *e-RRAs*, probably as a result of a wider focus on research activities.

Drawing conclusions as an optional strategy was quite frequent in both *e-RR* types. They have been found in printed letters to the editor in medicine (Vazquez, 2005) and as *Move 11 in the discussion section* in the medical research a*rticle* (Nwogu, 1997). Their presence suggests the presence of argumentative micro-genres in the corpora. Finally, the *Polite ending* strategy is infrequent in both *e-RR* types, which suggests an option for the avoidance of this protocolized strategy by *e-RR* writers in the online context of the PPORD in medicine.

This thesis has reported a quantitative study of *thebmj.com* electronic rapid responses to editorials and research articles and a qualitative study, a genre analysis, of these e-Rapid Response types. It has revealed that electronic rapid responses to editorials and research articles relate to the pool of printed academic literature medical experts commonly deal with but, at the same time, it shows that they are a distinct online realization. The analysis of the rhetorical structure of electronic rapid responses to research articles and editorials has discovered a letter-like generic structure with certain differences, and a rhetorical structure in terms of strategies with a fuller insight into the distinctive communicative purposes each strategy has. The findings of this study suggest that the structure of *e-RR* types is variable, flexible, and constitutes an *ad-hoc* selection of strategies embedded in a letter-like structure.

The overall purpose of *e-RRs* was to depict a personal position in an online post publication review debate; this means placing the e-editorial within a personal perspective which analyzes and questions its contents so as to decide whether editorial content is acceptable as valid knowledge. The e-responder *persona* is

presented by means of an *e-RR*. In consequence, the *E-RR* rhetorical strategies identified contribute to the realization of the overall purpose of this emerging genre.

As for the *e-RR* types textual organization, there is reproduction of some of the printed rhetorical strategies which characterize the printed genres of the medical academic community, often having other purposes which are different from those of the printed genres; but also the presence of strategies such as *Call for action, Indication of (negative or positive) effects,* and*Reference to experience* which seem to be particular to *e-RRs*. Some of the strategies identified in *e-RRs*, especially *Criticism*, suggest the presence of the medical community's surveillance of Grice's (1975) conversational maxims in the PPORD online exchanges.

E-RRs reveal strategy embedding which has been seen as characterizing printed research writing, but in our view, the high levels of embedding which characterize *e-RRs* might be accounted for as writers' adaptation to a multifactorial online communicative situation. *E-RRs* might be seen as mirroring *thebmj.com* editorial policy (i), the fact of engaging with the readers, including medical scientists(ii) the need to fit into a post-publication review e-health debate (iii), and an international context (iv).

E-RRs, as electronic letters to the editor, may be considered an online medical subgenre which seems to stem from the medical printed tradition in terms of their language statistics and word range, but, on the other hand, they show a rhetorical structure which makes further studies necessary to disclose whether they

constitute a particular medical e-subgenre on their own, or a group of e-subgenres, with the presence of microgenres.

FURTHER RESEARCH DIRECTIONS

This exploratory study of electronic rapid responses has given us some understanding of this medical e-subgenre. As this reseach has studied *thebmj.com* e-*RREs* and *e-RRRAs*, further investigation would be needed in order to verify the descriptive adequacy of the schematic models inferred here: i.e. more research would be essential to focus on the purpose and nature of other *e-RRs*, *e-RRs* across journals, in other time-spans or other disciplines. This thesis has looked into medical *e-RRs*, hence the rhetorical structures identified have not pointed to discipline variation within this e-subgenre; therefore, further studies are needed to address this issue and throw light on whether discipline-based differences emerge both in the word range of electronic rapid responses and/or their rhetorical structure.

Electronic rapid responses seem to constitute a heterogeneus set of texts, and include student-produced, patient-produced and medical expert-produced instances among others. Further studies will be crucial to discern whether expert and non-expert rapid responses have similar word ranges and rhetorical structures. In our study of the sentence length, and word range of electronic rapid responses, non-experts may have produced texts which might not completely reflect the discursive practices of the medical discipline; hence, affecting the results of this

study. For this to become evident, to currently quantify whether there is deviation from the statistics estimated further research would be required.

This study of electronic rapid responses has not undertaken the task of analysing the frequency of embedded strategies in *e-RRs*, nor their order or the presence of cycles; in this sense, further research will be useful to gain a better picture of these rhetorical structure elements of *e-RRs*.

As noted before, this research has identified some of the purposes of the rhetorical strategies employed by rapid response writers. A full, more detailed study of the range of purposes of each particular strategy would provide a clear picture of the role each particular strategy plays in electronic rapid responses and in their online international context.

Finally, we would like to conclude this thesis by adding that, after carrying out this passionate study, fuller awareness of options available online in the range and nature of scientific medical review genres in medicine expressed in the form of electronic rapid responses could benefit medical scientists'participation in future review activities and the development of this discipline.

The construction of knowledge can be viewed as an ongoing, never-ending, dialogical process which has been taking place generation after generations this seems to be the case in the medical field. In this process medical experts seem to be well aware of the importance of being at the cutting edge in research. The presence of the Internet has created new spheres for interaction, and new initiatives in electronic medical journals. This allows for further developments in publication review, particularly online post-publication review. This is the case of

some journals such as the online *BMJ* which provides a new milieau with opportunities for medical professionals to socially construct better maps of new medical territories; namely, for expert researchers to contribute their proposals in an editorial or article, for expert journal reviewers to modify it, and for other e-responders to further modify and contribute to it, making the process of knowledge validation even more precise.

Online peer review is having a rapidly increasing impact on medical science. The process of knowledge validation through post publication online debates is faster than, and complements, traditional forms of evaluation; hence, it will become crucial in the future of medical research for many years to come.

Thesis summary in Spanish (Resumen de la tesis en español)

Estudio de las respuestas rápidas electrónicas de la revista *British Medical Journal* desde un enfoque de género.

El continuo crecimiento de las comunicaciones electrónicas en las ciencias médicas ha creado nuevas esferas de interacción en las que sus participantes evaluan las contribuciones científicas realizadas por otros expertos. El presente estudio se aborda como caso práctico de Análisis de Discurso Comparativo. En el marco de la tradición del Análisis del Discurso, y del Análisis de Género, la presente tesis procede inicialmente a caracterizar cuantitativamente, en términos de frecuencia, un corpus de Respuestas Rápidas Electrónicas (*e-RR*s) en la revista *British Medical Journal* (*BMJ*) para, a continuación, proceder al estudio de las diferencias en la organización del discurso de dos subgéneros médicos presentes en la revista, Respuestas Rápidas Electrónicas a Editoriales (*e-RREs*) y Respuestas Rápidas Electrónicas a Artículos de Investigación (*e-RRRAs*).

I. Objetivos de la Tesis

Los objetivos de la presente tesis son estudiar la lengua de las respuestas rápidas electrónicas, en el caso de la revista electrónica *British Medical Journal (BMJ),* empleando las aportaciones realizadas por la Lingüística Aplicada. Particularmente, se pretende observar similitudes y diferencias en los subcorpus de la revista online y describirlos en el marco proporcionado por la Lingüística Cuantitativa y el Análisis de Género.

En primer lugar, los objetivos de la presente tesis son estimar los siguientes estadísticos en los subcorpus de respuestas electrónicas en *BMJ*:

(i) La actividad electrónica elicitada por los artículos del *BMJ* en términos de respuestas electrónicas

(ii) El número de respuestas rápidas por género electrónico

(iii) El número de palabras por tipo de respuesta electrónica

(iv) Longitud de la oración y longitud de la respuesta rápida electrónica

(v) Número de oraciones por tipo de respuesta

(vi) El abanico de palabras más comunes en los tipos de respuestas electrónicas

En segundo lugar, la presente investigación se plantea el estudio e identificación de los elementos constitutivos de las respuestas electrónicas a artículos de investigación y editoriales. Por tanto, ofrece una descripción de las respuestas electrónicas basada en el análisis de corpus desde una perspectiva del análisis de género, lo cual implica el empleo de la lingüística aplicada cuantitativa para la caracterización de los corpus del *BMJ* y el enfoque del análisis de género para analizar los subcorpus de *e-RREs* y *e-RRRAs.*

En tercer lugar, se propone averiguar si hay asociación, entre las variables tipo de respuesta electrónica y propósito de respuesta electrónica en el debate online subsiguiente a la publicación de los artículos; entre las variables tipo de respuesta y estructura en términos de movimientos y si hay asociación entre tipo de respuesta electrónica y abanico de estrategias identificadas en las respuestas rápidas electrónicas, y si las diferencias observadas son significativas.

II. Metodología

La metodología empleada, para obtener nuestros objetivos, hace uso de la presente en la tradición de la lingüística aplicada y el análisis de género. En ella enfatizamos nuestros esfuerzos por conseguir un corpus representativo, amplio y equilibrado. En primer lugar se hacen específicos los criterios para la selección del corpus; en segundo lugar se describen los subcorpus objecto de estudio cuantitativo y cualitativo; en tercer lugar se hace referencia al software empleado en el estudio cuantitativo; seguidamente se hace una descripción de los análisis quantitativo y cualitativo de las respuestas rápidas en la revista *BMJ* y finalmente se ofrece el abanico de elementos constitutivos de ambos tipos de respuesta.

III. Resumen, conclusiones y sugerencias para futura investigación

La presente tesis tiene por objeto caracterizar una selección de respuestas rápidas electrónicas en *thebmj.com* como género evaluativo online emergente (Hyland & Diani, 2009) en el ámbito médico.

El Capítulo 1 es una presentación del locus de interés de este estudio en el amplio contexto de internet. Primero situa el presente estudio de respuestas electrónicas en la intersección del discurso médico, el discurso electrónico y los desarrollos y recursos electrónicos en medicina (*e-health*). En segundo lugar, enmarca las respuestas electrónicas en el contexto del movimiento de *open access* (acceso abierto), iniciativas recientes en la revision online por pares, y la revolucion electrónica en medicina. En tercer lugar describe la revista, su política de revisión y sus debates online postpublicación de artículos y editoriales. En cuarto lugar hace referencia al objeto del presente estudio, las respuestas rápidas electrónicas a editoriales y artículos de investigación. Y, finalmente, hace referencia a los objetivos de la presente investigación, las preguntas planteadas, las hipótesis básicas y el diseño de la investigación.

El capítulo 2, titulado *Revision de la literatura*, proporciona los marcos teóricos para nuestro estudio de las respuestas electrónicas en *thebmj.com;* particularmente las tradiciones de Comunicación Mediada por Ordenador y el Análisis de Género. Se ha procedido a caracterizar en primer lugar las respuestas electrónicas rápidas como ejemplos de “comunicación mediada por ordenador” (Baron, 2008) e Inglés Electrónico para Medicina (Posteguillo, 2003), de naturaleza asincrónica y de casos de comunicación de uno a varios. Seguidamente han sido situadas en la tradición del “discurso electrónico” (Herring, 1996) debido a que los profesionales médicos emplean la lengua inglesa para comunicarse en el ciberespacio.

La rápida expansión de internet ha proporcionado la base para la emergencia de nuevos géneros lingüísticos, y ha probado ser un contexto particularmente interesante en el que estudiar el empleo y desarrollo de los géneros. Hay elevados niveles de experimentación con géneros potenciales (Crowston & Williams, 1997), entre los que podemos situar las respuestas electrónicas del *thebmj.com* como cartas electrónicas al editor. Las respuestas electrónicas pueden considerarse versiones digitales replicadas de las cartas al editor impresas, aunque el proceso de publicacion de la revista *BMJ,* primero online, puede sugerir cambios.

Biber et al (1998) han servido de marco para nuestro enfoque de lingüística de corpus ya que caracterizan esta última como empírica, haciendo uso de corpus y software y dependiente de técnicas cuantitativas y cualitativas.

El capítulo 3, *Metodología*, comprende la metodología empleada para responder a las preguntas planteadas en el presente estudio y para contrastar sus hipótesis. Dicha metodologia ha empleado los métodos característicos de la lingüística de corpus y el análisis de género, haciendo un esfuerzo por obtener un corpus representativo y equilibrado que posibilitara la fiabilidad y validez de procedimientos y resultados. En primer lugar se ha hecho referencia a los criterios para la selección del corpus: la relevancia de la revista *BMJ*, la representatividad y la accesibilidad del corpus. Las muestras son amplias (1,750 textos para el estudio cuantitativo y 200 para el estudio cuantitativo), y representativas para el enfoque sincrónico que se ha adoptado en el estudio. En segundo lugar, se ha procedido a la descripción de los corpus que son

objeto de estudio. En tercer lugar se ha indicado el software empleado en el estudio cuantitativo *Wordsmith tools 6* (Scott, 2015). En cuarto lugar, se ofrece la descripción de los análisis cuantitativos y cualitativos de las respuestas electronicas en *thebmj.com.* En quinto lugar se proporciona el listado de respuestas electronicas por tipos y su análisis cualitativo. Por último, se indican las aportaciones de Swales (1990), Holmes (1997), Paltridge (1994) y Rasmenin (2006) que se han empleado en la realización de este estudio.

El capítulo 4, *Resultados cuantitativos,* ha ofrecido respuesta a las preguntas planteadas en el capítulo 1. Se ha procedido al cálculo del número medio de respuestas electrónicas por editorial y artículo, seguido del número de palabras por tipo de respuesta, la longitud de la oración y la media de oraciones por tipo de respuesta. Seguidamente se muestra el abanico de palabras más frecuentes en los subcorpus de *e-RREs* y *e-RRRAs.*

Nuestro estudio cuantitativo de las respuestas electrónicas de *thebmj.com*, muestra que los artículos de investigación reciben un mayor número de respuestas electrónicas que las editoriales. La presencia de respuestas rápidas puede servir al mantenimiento de relaciones personales como norma interaccional en el contexto médico internacional, sin embargo, puede tambien sugerir la presencia de competitividad y controversia en las ciencias médicas. La ausencia de respuestas electrónicas puede indicar la aceptación del contenido publicado, una estrategia de protección de imagen académica, o la preferencia por permanecer *offline.* En este sentido, la ausencia de respuestas

puede contribuir a alcanzar un consenso en los debates medicos online. En segundo lugar, la longitud media de la oración en nuestro corpus es similar a la que caracteriza la literatura médica impresa. Finalmente, nuestro estudio de las palabras más frecuentes en ambos corpus revela la presencia de conceptos médicos, actividades de investigación, el género objeto de revisión (editoriales y artículos) y un determinado grado de personalización. Lo cual sugiere que las contribuciones electrónicas de los lectores de la revista online *thebmj.com*, reflejan las prácticas de la comunidad médica online, como indicado por parte de Androutsopoulos (2006).

El capítulo 5, *Estructura retórica de las respuestas electrónicas a editoriales online del BMJ*, desarrolla nuestro análisis cualitativo del corpus de 100 respuestas rápidas a editoriales como ejemplos de comunicación entre expertos; se hace estudio de sus propósitos en el debate online posterior a la publicación de editoriales, y se procede al estudio de su estructura retórica.

La identificación de la estructura genérica de las *e-RREs* en términos de movimientos (moves)parece tener origen en la tradición epistolar, con escasa presencia de los protocolarios apertura y cierre, y obligatorios título y cuerpo de la respuesta electrónica. Su análisis en términos de estrategias muestra que la mayoria de ellas son opcionales, aunque hace necesario un estudio de la posición en la que estos elementos constituyentes pueden situarse.

Conforme a los resultados obtenidos, el *título* es una estrategia obligatoria, mientras que el *Reconocimiento social* resulta ser convencional. El presente estudio revela una selección ad-hoc y escasa presencia de las restantes

estrategias presentes en *e-RREs;Indicación de Acuerdo/desacuerdo, Conocimientos marco, Consideración de evidencia científica, Crítica, Indicación de efectos (positivos y negativos), Palabras de advertencia, Indicación de problemas, Indicación de soluciones, Planteamiento de preguntas, Indicación de respuestas, Práctica clínica, Llamamiento al cambio, Situación, Experiencia propia, Indicación de oposición, Referencia o descripción de casos médicos, Indicacion de áreas faltas de investigación, Clarificación, Recurso a la propia investigación, Implicaciones, Interpretaciones, Extracción de conclusiones y Cierre de cortesía.*

El capítulo 6, *Estructura retórica de las respuestas electrónicas a artículos de investigación online del BMJ,* desarrolla nuestro análisis cualitativo del corpus de 100 respuestas rápidas a artículos como ejemplos de comunicación entre expertos; se hace estudio de sus propósitos en el debate online posterior a la publicación de artículos de investigación, y se procede al estudio de su estructura retórica.

La identificación de la estructura genérica de las *e-RRRAs* en términos de movimientos (moves)también parece tener origen en la tradición epistolar, con escasa presencia de los protocolarios apertura y cierre, y obligatorios título y cuerpo de la respuesta electrónica. Su análisis en términos de estrategias muestra, así mismo, que la mayoria de ellas son opcionales, aunque hace necesario un estudio de la posición en la que estos elementos constituyentes pueden situarse.

Conforme a los resultados obtenidos, el *título* es una estrategia obligatoria, mientras que el *Reconocimiento social* resulta ser convencional. El presente estudio revela una selección ad-hoc y escasa presencia de las restantes estrategias presentes en *e-RRRAs;Indicación de Acuerdo/desacuerdo, Conocimientos marco, Consideración de evidencia científica, Crítica, Indicación de efectos (positivos y negativos), Palabras de advertencia, Indicación de problemas, Indicación de soluciones, Planteamiento de preguntas, Indicación de respuestas, Llamamiento al cambio, Reconocimiento de limitaciones, Situación, Indicación de oposición, Experiencia propia, Indicacion de áreas faltas de investigación, Clarificación, Recurso a la propia investigación, Implicaciones, Interpretaciones, Extracción de conclusiones y Cierre de cortesía.*

Por último, el capítulo 7, denominado *Estructuras de las respuestas rápidas electrónicas de thebmj.com* aglutina dichos resultados, hace empleo de literatura relevante y ofrece respuestas a nuestras preguntas respecto a la presencia de las asociaciones entre tipo de respuesta y su finalidad en debate online, entre tipo de respuesta y su estructura genérica en términos de movimientos, y entre tipo de respuesta y su estructura en términos de estrategias, asímismo hace referencia a la presencia de diferencias significativas entre las observaciones de dichas variables por tipo de respuesta.

En primer lugar, se revela, mediante chi cuadrado, la asociación entre tipo de respuesta rápida y la finalidad inferida. Desde un prisma más detenido se observa una mayor presencia de respuestas electrónicas en oposición a

artículos en *e-RRRAs* y una mayor presencia de respuestas en apoyo de editoriales en *e-RRE*, con diferencias significativas.

En segundo lugar, se revela la no asociación entre tipo de respuesta rápida y estructura genérica de las respuestas rápidas en su estructura inferida de *Título – Apertura – Cuerpo – Cierre*, y puede concluirse que se trata de una estructura genérica común a ambos tipos de respuesta.

En tercer lugar, la identificación de los elementos constituyentes (estrategias) de la estructura retórica de los tipos de respuesta electrónica, ha revelado abanicos similares de estrategias, aunque se han observado algunas diferencias. Su estudio mediante chi cuadrado ha mostrado la interacción/asociación entre el tipo de respuesta y su estructura retórica en términos de estrategias, y puede concluirse que las diferencias observadas son significativas. La crítica parece ser significativamente más frecuente en respuestas electrónicas a artículos de investigación, mientras que la indicacion de problemas y los llamamientos a la acción han resultado ser significativamente más frecuentes en las respuestas rápidas a editoriales.

La presente tesis proporciona evidencia en apoyo de la idea de que importantes factores contextuales influyen en los subgeneros médicos de online tales como las *respuestas electrónicas* en el caso de la revista *thebmj.com*. En conjunción con la materia, la finalidad, la audiencia internacional y el medio del discurso, el contenido de las *e-RRs* como subgéneros médicos evaluativos parece influido por importantes factores sociales como las normas científicas y el mantenimiento de relaciones

sociales. En este sentido, la presente tesis contribuye a la tradición de investigación en variables sociales en el análisis de género y a la investigación en los géneros evaluativos en el ámbito médico.

Vocablos de búsqueda:

Análisis de Género, Discurso Médico, Respuesta electrónica, Comunicación por Ordenador**.**

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Appendix 3.1 List of *e-RRRA* Texts for Qualitative Analysis

*e-RRRA*001 Soltani H. Use of dummies and sudden infant death syndrome (SIDS)- cause and effect or mere association. Rapid response to Research: Use of a dummy (pacifier) during sleep and risk of sudden infant death syndrome (SIDS): population based case-control study. De- Kun Li , Marian Willinger , Diana B Petitti , Roxana Odouli, Liyan Liu & Howard J Hoffman. *BMJ*2006;332: doi:10.1136/*BMJ*.38671.640475.55. **http://*BMJ*.com/cgi/content/full/332/7532/18#responses**Accessed 1 March 2008.

*e-RRRA*002 Cates CJ. Risk of SIDS connot be assessed in a case-control study design. Rapid response to Research: Use of a dummy (pacifier) during sleep and risk of sudden infant death syndrome (SIDS): population based case-control study. De- Kun Li , Marian Willinger , Diana B Petitti , Roxana Odouli, Liyan Liu & Howard J Hoffman. *BMJ*2006;332: doi:10.1136/*BMJ*.38671.640475.55. **http://*BMJ*.com/cgi/content/full/332/7532/18#responses**Accessed 1 March 2008.

*e-RRRA*003 Hughes-Davies T. Dummies and unexpected death. Rapid response to Research: Use of a dummy (pacifier) during sleep and risk of sudden infant death syndrome (SIDS): population based case-control study. De- Kun Li , Marian Willinger , Diana B Petitti , Roxana Odouli, Liyan Liu & Howard J Hoffman. *BMJ*2006;332: doi:10.1136/*BMJ*.38671.640475.55. **http://*BMJ*.com/cgi/content/full/332/7532/18#responses**Accessed 1 March 2008.

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doi:10.1136/*BMJ*.38671.640475.55.
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*e-RRRA*007 Cates CJ. Low response rates generate considerable uncertainty. Rapid response to Research: Use of a dummy (pacifier) during sleep and risk of sudden infant death syndrome (SIDS): population based case-control study De- Kun Li , Marian Willinger , Diana B Petitti , Roxana Odouli, Liyan Liu & Howard J Hoffman. *BMJ*2006;332: doi:10.1136/*BMJ*.38671.640475.55.
http://*BMJ*.com/cgi/content/full/332/7532/18#responsesAccessed 1 March 2008.

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http://*BMJ*.com/cgi/content/full/332/7532/18#responsesAccessed 1 March 2008.

*e-RRRA*009 Blair PS & Fleming PJ. The presumption of causality. Rapid response to Research: Use of a dummy (pacifier) during sleep and risk of sudden infant death syndrome (SIDS): population based case-control study. De- Kun Li , Marian Willinger , Diana B Petitti , Roxana Odouli, Liyan Liu & Howard J Hoffman. *BMJ*2006;332: doi:10.1136/*BMJ*.38671.640475.55.
http://*BMJ*.com/cgi/content/full/332/7532/18#responsesAccessed 1 March 2008.

*e-RRRA*010 Campbell-Taylor I. Other considerations with respect to pacifier use. Rapid response to Research: Use of a dummy (pacifier) during sleep and risk of sudden infant death syndrome (SIDS): population based case-control study De- Kun Li , Marian Willinger , Diana B Petitti , Roxana Odouli, Liyan Liu & Howard J Hoffman. *BMJ*2006;332: doi:10.1136/*BMJ*.38671.640475.55.
http://*BMJ*.com/cgi/content/full/332/7532/18#responsesAccessed 1 March 2008.

*e-RRRA*011 Perkin MR. Under-powered and over-interpreted. Rapid response to Research: Use of a dummy (pacifier) during sleep and risk of sudden infant death syndrome (SIDS): population based case-control study. De- Kun Li , Marian Willinger , Diana B Petitti , Roxana Odouli, Liyan Liu & Howard J Hoffman. *BMJ*2006;332: doi:10.1136/*BMJ*.38671.640475.55.
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*e-RRRA*012 Kulandaivel D. Case-control study is appropriate but the intervention needs more justification. Rapid response to Research: Use of a dummy (pacifier) during sleep and risk of sudden infant death syndrome (SIDS): population based case-control study. De- Kun Li , Marian Willinger , Diana B Petitti , Roxana Odouli, Liyan Liu & Howard J Hoffman. *BMJ*2006;332: doi:10.1136/*BMJ*.38671.640475.55.
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*e-RRRA*013 Hayanga AJ. Take this opportunity to screen for anal cancer too. Rapid response to Research: Lifetime effects, costs, and cost effectiveness of testing for human papilovirus to manage low grade cytological abnormalities: results of the NHS pilot studies. Rosa Legood, Alastair Gray, Jane Wolstenholme & Sue Moss. *BMJ*2006; 332: doi:10.1136/*BMJ*.38698.458866.7C **http://*BMJ*.com/cgi/content/full/332/7533/79#responses**Accessed 01 March 2008.

*e-RRRA*014 Charnley BJ. Does this study model the current Cytology Screening Programme? . Rapid response to Research: Lifetime effects, costs, and cost effectiveness of testing for human papilovirus to manage low grade cytological abnormalities: results of the NHS pilot studies. Rosa Legood, Alastair Gray, Jane Wolstenholme & Sue Moss. *BMJ*2006; 332: doi:10.1136/*BMJ*.38698.458866.7C **http://*BMJ*.com/cgi/content/full/332/7533/79#responses**Accessed 01 March 2008.

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*e-RRRA*017 Dinnet EM, Mungall MMB, Gordon C, Ronald ES & Gaw A. Offering results to research participants. Rapid response to Research: Receiving a summary of the results of a trial: Qualitative study of participants' views. Mary Dixon-Woods, Clare Jackson, Kate C Windridge & Sara Kenyon. *BMJ*2006;332: doi:10.1136/*BMJ*.38675.677963.3A **http://*BMJ*.com/cgi/content/full/332/7535/206#responses**Accessed 01 March 2008.

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Appendix 5.1 Rhetorical structure of electronic rapid responses to editorials

TEXT	PPORD	RHETORICAL STRUCTURE
E-RRE 001	Support	Title>Social acknowledgment/focus> agreement>Background knowledge>Evidence> Evidence>Evidence>Evidence> Word of warning> Criticism>Call for change (advice)> (positive) Effects/Benefits
E-RRE 002	Support	Title> Background knowledge>Common Clinical practice> Problem>Situation>(positive)Effect> Situation>(negative) Effect
E-RRE 003	Support (+complement)	Title> Social acknowledgement>Agreement> Situation>(positive) Effect>Background Knowledge> Situation> (positive) Effects Situation> (negative) Effects> Conclusion
E-RRE 004	Opposition	Title>Social acknowledgement>Local news> Situation> (negative) Effect> Question raising > Common clinical practice > (positive) Effects
E-RRE 005	Support	Title>Salutation>Social acknowledgment> Agreement > Background knowledge > (positive) effects > Evidence> Evidence > (positive) Effects > Positive effects > Positive effects >

		Positive effects > Evidence > Evidence >(negative) Effect > Positive effect> Conclusion > Call for change (action)

E-RRE 006	Support	Title> Salutation > Social acknowledgmer >Word of warning> Case report > Clarification Call for change (advice)

E-RRE 007	Support	Title > Social acknowledgment > Common Clinical practice > Agreement > Background Knowledge> Question raising > Answer Common clinical practice > Problem > Solution > Conclusion>

E-RRE 008	Support (+complement)	Title > Salutation > Social acknowledgment > Evidence > Background knowledge > Own Research > Indication of mistake > Conclusion Call for change (raising awareness) > Solution > Positive effects/benefits > Call for change (advice) > Agreement > Positive effect > Problem

E-RRE 009	Support (+complement)	Title > Social acknowledgment> Local news > Agreement > Indication of mistake > Clarification> Evidence > Implications Conclusion > Problem > Solution > Evidence >Evidence > Evidence > Call for change (action)

E-RRE 010	Support (+complement)	Title > Agreement >Word of warning> >Call for action (advice) > Call for action Problem > Background knowledge > Solution

		Question raising > Question raising > Call for change (advice)

E-RRE 011	Support (+complement)	Title > Agreement > Local news > Evidence> Indication of mistake> Own experience

E-RRE 012	Support (+complement)	Title > Social acknowledgment> Problem > Solution > Background knowledge > Evidence Evidence > Evidence > Conclusion

E-RRE 013	Support (+complement)	Title > Indication of mistake> Clarification > Own research > Call for change (action) Criticism

E-RRE 014	Authors' response	Title > Salutation > Social acknowledgment Conclusion > Clarification > Evidence > Evidence > Indication of mistake > Agreement > Finding a gap > Conclusion > Benefit > Benefit > Benefit > Call for action (advice)

E-RRE 015	Complement	Title > Social acknowledgment> Evidence> Benefit > Situation > Background knowledge> Problem > Solution > Problem > Solution Evidence > Conclusion

E-RRE 016	Opposition	Title > Social acknowlegment > Background Knowledge > Personal opinion > Personal experience > Challenge > Background Knowledge > Counterclaiming > Evidence > Criticism> Problem > Question raising Answer

E-RRE 017	Support (+ complement	Title > Salutation > Social acknowledgment > Question raising > Background knowledge > Evidence > Problem > Evidence > Evidence> Evidence > Local news > Implications > Question Raising > Answer
E-RRE 018	Support	Title > Social acknowlegment > Personal Experience > Agreement > Problem > Solution > Call for action > Problem > Call for action (urge)> Call for action (advice)> Call for action (advice)
E-RRE 019	Opposition	Title > Background knowledge > Criticism (to editorial) > Counterclaiming Background knowledge > Recent event in the field > (negative) Effects Implications > Personal opinion > Criticism > (negative) Effects.
E-RRE 020	Opposition	Title > Salutation > Social acknowledgmer >Criticism > Background knowledge > Situation >Problem > Personal experience Conclusion
E-RRE 021	Support	Title > Social acknowlegment> Problem> Negative effects > Implications > Call for change (urge) > Problem > Background knowledge > Problem > Solution > Positive effects > Call for action (urge) > Call for action (advice)

E-RRE 022	Opposition	Title > Criticism > Background knowledge > Criticism

E-RRE 023	Support (+ complement	Title > Salutation >Social acknowledgment > Indication of a gap > Background knowledge > Own research > Evidence > Call for action (urge)> Closure

E-RRE 024	Support	Title>Salutation>Social acknowledgement> Situation> Own experience> Conclusion> Call for change (advice)

E-RRE 025	Support	Title>Salutation>Social acknowlegment/focus>(negative) Effects> Own experience> Question raising

E-RRE 026	Support	Title>Salutation>Situation>Own experience>Background knowledge>Situation>(negative) Effect>(negative) Effects> Conclusion> Call for change (urge)

E-RRE 027	(support)	Title>Case report> Background knowledge>Evidence> Word of warning>Own research> Evidence>Evidence>

		Background knowledge> Evidence> Problem> Call for action (urge)

E-RRE 028	Support	Title>Situation>Situation> Question raising>answer> Problem> Signalling gap> Questionraising>Evidence> Question raising>Answer>(negative) Effects>Solution> Conclusion

E-RRE 029	Support	Social acknowledgment/focus> Call for change (need)> Own experience> Situation

E-RRE 030	Support	Title>Social acknowledgment> Problem>Situation>Criticism> Situation>Situation>Problem> Call for change (need)

E-RRE 031	Support	Title>Social acknowlegment/focus> Problem>Solution> Solution>Situation>Call for action (question) >Evidence

E-RRE 032	Support	Title>Salutation>Social Acknowledgment/focus> Agreement>problem> Background knowledge>problem> Background knowledge>

		Call for action> Background knowledge>Problem>Solution

E-RRE 033	Support	Title>own research>Call for change

E-RRE 034	Support	Title>Social acknowledgment/focus>Clarification> Conclusion>Criticism>Conclusion

E-RRE 035	Support	Title>Social acknowledgment/focus>Criticism> Background knowledge> Criticism>Situation>Conclusion

E-RRE 036	Support	Title>Social acknowledgment/focus> Background knowledge>problem> Signalling gap>Problem>Criticism> Call for action

E-RRE 037	Support	Title>Evidence>Conclusion>Evidence> Problem>Evidence>Situation>Evidence> Disagreement>Criticism>Criticism>Criticism> Question raising>Answer>Conclusion>Focus> Question raising>Answer

E-RRE 038	Reply	Title>Social acknowledgement/focus>Comment> >Comment>Comment>Signalling Gap>Clarification>Clarification>Call for action (suggestion)>Conclusion>Situation> Agreement>Signalling gaps> Word of warning>> Clarification>conclusion

E-RRE 039	Support	Title>Salutation>Effect>Effect>Effect>

		Background knowledge>Agreement> Problem>Solution>Effect>Effect>Effect> Call for Change (urge)

E-RRE 040	Support	Title>Own experience>Effect>Effect> Solution>Effects> Call for change (need)> Situation>Effects

E-RRE 041	Opposition	Title>Social acknowledgment/focus>Evidence> Criticism>Evidence>Evidence>Evidence> Conclusion

E-RRE 042	Opposition	Title> Social acknowledgment/focus> Agreement>Effect>Counterclaiming>Evidence> Clarification>Indication of mistake>Evidence> Evidence> Call for change (urge)

E-RRE 043	Opposition	Title> Social acknowledgment/focus>Situation> Evidence>Clinical practice>Question raising> Answer>Clinical practice>Counterclaiming> Evidence>Criticism>Evidence>Evidence> Conclusion>Question raising>Question raising> Question raising

E-RRE 044	Opposition	Title>Agreement>Question raising>Answer> Focus>Question raising>Criticism>Clinical Practice> Call for change (need)>Conclusion

E-RRE 045	Opposition	Title> Social acknowledgment/focus>Situation>

		Focus> Word of warning> Comment> Comment> Word of warning> Situation>Conclusion

E-RRE 046	Opposition	Title> Social acknowledgment/focus>Criticism> Clarification>Clarification>Problem> Solution>Call for change (need)

E-RRE 047	Support	Title>Indication of a gap>Background Knowledge>Clinical practice> Evidence>Evidence>Evidence> Call for change (advice)>Call for change (advice)

E-RRE 048	Opposition	Title>Salutation> Social acknowledgment/focus> Situation>Evidence>Situation

E-RRE 049	Support	Title>Salutation> Social acknowledgment/focus> Indication of a gap>Background knowledge> Problem>Evidence>Call for action (urge)> Evidence>Evidence>Evidence>Own research> Solution>Question raising

E-RRE 050	Support	Title>Call for change (urge)>Background Knowledge>Social acknowledgment/focus> Problem>Background knowledge> Evidence>Problem>Evidence> Situation>Situation>Situation>Situation> Conclusion

E-RRE 051	Support	Title>Salutation>Situation>Effect>Situation>

		Call for change (advice)> Call for change (advice)> Problem>Solution> Call for change>Need

E-RRE 052	Opposition	Title>Situation>Conclusion>Effects> Interpretation>Criticism>Criticism> Question Raising> Clinical practice>Conclusion

E-RRE 053	Reply	Title> Social acknowledgment/focus> Own research>Clarification>Conclusion> Call for action (suggestion)

E-RRE 054	Support	Title>Salutation> Social acknowledgment/focus> Problem>Solution>Solution>Agreement> Problem>Evidence>Question raising> Evidence>Conclusion>Background knowledge> Evidence>Evidence>Effect> Conclusion>Closure

E-RRE 055	Support	Title>Salutation> Social acknowledgment/focus> Event> Social acknowledgment/focus>Situation> Situation>Situation>Situation> Problem>Situation> Call for change (need)> Call for change (hope)> Call for change (advice) > Call for change (prediction)

E-RRE 056	Opposing	Title> Social acknowledgment/focus> Own experience>Own experience>

		Background knowledge> Problem>Problem>Situation> Questionraising>Question raising> Question raising>Solution> Call for change (prediction)

E-RRE 057	Support	Title> Social acknowledgment/focus> Call for change (advice)> Question raising>Answer> Problem>Solution> Call for change (urge)

E-RRE 058	Support	Title> Social acknowledgment/focus> Situation>Problem>Evidence> Indication of a gap> Solution>Problem>Situation>Effects> Call for change (need)>Effect>Problem> Evidence>Evidence>Evidence> Interpretations>Effects> Backgroundknowledge> Problem> Call for change (need)>Conclusion

E-RRE 059	Support	Title> Social acknowledgment/focus> Situation>Problem> Situation>Conclusion>Thanking

E-RRE 060	Support	Title>Evidence> Social acknowledgment/focus> Problem>Background knowledge> Call for change (urge)> situation> Background Knowledge> Call for change (urge)>evidence>

		Background knowledge>Situation> Call for change (urge)>Situation> Evidence> Background Knowledge> Evidence>Conclusion>Problem> Call for change (urge)

E-RRE 061	Support	Title>Salutation> Social acknowledgment/focus> Situation>Problem>Solution> Evidence>Situation>Background knowlege> Call for change (need)

E-RRE 062	Opposition	Title>agreement> Social acknowledgment/focus> Criticism>Counterclaiming>Indication of a gap> Evidence>Evidence>Situation>Situation> Situation>Criticism>Situation>Evidence> Agreement>Evidence>Counterclaiming> Situation>Evidence> Call for change (urge) Effect>Situation>Effect

E-RRE 063	Support	Title>background knowledge> Social acknowledgment/focus> Evidence>Effect> Problem>Problem>Solution> Call for change (urge)

E-RRE 064	Support	Title> Social acknowledgment/focus>Effects> Call for change (need)>Background knowledge> Indication of a gap>Background knowledge> Evidence>Effects>Effects>Effects> Call for Change (advice)> Call for change (urge)> Call for change (urge)

E-RRE 065	Support	Title>Salutation> Social acknowledgment/focus> Background knowledge>Evidence>Question raising>Question raising>Problem> Evidence>Problem>Effects>Call for change (advice)>Call for change (need)

E-RRE 066	Support	Title> Social acknowledgment/focus> Indication of a gap>Background knowledge> Evidence>Effect>Evidence>Effect> Call for action (need)>Word of warning

E-RRE 067	Support	Title>Own experience>Effects

E-RRE 068	Support	Title>Clarification>Criticism>Own experience> Question raising

E-RRE 069	(support)	Title> Social acknowledgment/focus> Indication of a gap>Effects> Background knowledge>Situation> Effect>Own experience> Indication of a gap>Effects>Situation> Conclusion>Effects

E-RRE 070	(support)	Title> Social acknowledgment/focus> Clarification>Situation>Problem>Criticism> Call for change (hope)

E-RRE 071	opposition	Title> Social acknowledgment/focus> Problem> Conclusion

E-RRE 072	opposition	Title> Social acknowledgment/focus>Indication of a gap>Situation>Situation>Problem>Effects> Call for change (need)
E-RRE 073	Opposition	Title> Social acknowledgment/focus>Situation> Indication of a gap>Background knowledge> Situation>Problem>Solution>Criticism> Call for change (need)
E-RRE 074	(support)	Title>Case report/reference>Background knowledge>Question raising
E-RRE 075	Opposition	Title>Clarification>Implications>Effects> Call for change (urge)
E-RRE 076	Opposition	Title>salutation> Social acknowledgment/focus> Indication of a gap>Effect>Effect>Effect>Effect> Effect>Background knowledge>Solution> Problem>Background knowledge> Question raising>Conclusion
E-RRE 077	Opposition	Title>Salutation> Social acknowledgment/focus> Background knowledge> Problem>Solution>Problem>Solution> Situation>Effect>Call for change (advice)
E-RRE 078	Opposition	Title> Social acknowledgment/focus> Effect>Background knowledge>Evidence> Evidence>Evidence>Evidence>Conclusion
E-RRE 079	Opposition	Title>Salutation> Social acknowledgment/focus> Problem>Background knowledge>

		Indication of a gap> Background knowledge> Evidence> Evidence>Evidence>Situation>Interpretations> Background knowledge>Interpretations> Conclusion>Conclusion>Effect> Agreement>Effect>Solution

E-RRE 080	Opposition	Title> Social acknowledgment/focus> Indication of a gap>Effect>Criticism> Counterclaiming>Agreement> Call for change (need)

E-RRE 081	Opposition	Title>Salutation>Evidence> Background knowledge>Effect> Background knowledge> Evidence>Background knowledge> Call for change (advice) Effect>Evidence>Evidence>Evidence> Call for change (advice)>Situation> Conclusion>Indication of a gap> Call for change (suggestion)

E-RRE 082	Opposition	Title>Call for change (need)>Own experience> Situation>Own Experience>Indication of a gap> Focus>Effect>Effect>Indication of a gap> Evidence>Question raising>Question raising>Background knowledge> Question raising>Answer> Own experience>Conclusion

E-RRE 083	Support	Title>Own experience> Effect>

		Call for change (advice)>Own experience

E-RRE 084	Opposition	Title>Salutation> Disagreement>Evidence> Own experience>Evidence> Question raising>Background knowledge> Effect>Question Raising>Agreement> Question raising> Call for change (need)

E-RRE 085	Support	Title>Own experience>Background knowledge> Evidence>Effects>Situation> Call for change (need)>Problem>Solution

E-RRE 086	Reply	Thanking>Background knowledge>Evidence> Agreement>Evidence>Evidence> Background knowledge>Evidence> Evidence>Evidence>Evidence> Counterclaiming>Indication of a gap> Situation>Situation> Background knowledge>Call for action (advice)> Situation>Call for action (need)> Evidence>Background knowledge

E-RRE 087	Opposition	Title>Social acknowledgement/ Own experience>Counterclaiming>Criticism> Criticism>Criticism>Criticism> Word of warning> Conclusion

E-RRE 088	Support	Title>Indication of a gap>Filling gap> Background knowledge>Evidence> Background knowledge> Question raising>Answer>Answer>

		Problem> Call for change (urge) Solution>Problems

E-RRE 089	support	Title> Social acknowledgement/focus> Own experience>Question raising

E-RRE 090	(support)	Title>Background knowledge> Word of warning >Problem

E-RRE 091	(support)	Title> Social acknowledgement/focus> Indication of a gap> Filling gap>Situation>Clarification> Problem>Solution>Word of warning

E-RRE 092	Support	Title>Own experience>Situation>Evidence> Evidence>Evidence>Effect> Social acknowledgement/focus> Criticism>Criticism>Interpretation> Call for change(need)>Agreement> Clarification>Background knowledge> Call for action (advice)> Own experience> Question raising>Own experience> Problem>Conclusion

E-RRE 093	Support	Title> Social acknowledgement/focus>Problem> Background knowledge>Situation> Criticism>Background knowledge> Own experience>Evidence>Situation> Problem>Conclusion> Call for change (request)

E-RRE 094	Support	Title> Social acknowledgement/focus> Problem>Background knowledge>Solution> Call for Change (suggestion)>Criticism> Problem>Solution> Call for change (need)

E-RRE 095	Opposition	Title>Salutation>Effects>Effects> Indication of a gap>Situation> Evidence>Evidence>Effect> Evidence>Conclusion

E-RRE 096	Support	Title> Social acknowledgement/focus> Problem>Solution>Effects

E-RRE 097	Support	Title>Situation>Problem>Effects> Solution>Situation>Effects> Call for change(need)

E-RRE 098	Support	Title>Salutation> Social acknowledgement/focus> Situation>Interpretation>Effects> Word of warning>Problem> Call for change (advice)> Background knowledge>Situation> Call for change (need)

E-RRE 099	Support	Title>Salutation> Social acknowledgement/focus> Own research>Background knowledge> Problem>Situation>Effects>Solution

E-RRE 100	Opposition	Title>Salutation>Problem>Situation>

		Conclusion> Word of warning >Criticism>Criticism> Evidence> Interpretation> Word of warning

Appendix 6.1 Rhetorical structure of electronic rapid responses to research articles

TEXT	PPORD	RHETORICAL STRUCTURE
E-RRRA 001	Opposition	Title>Effect>Criticism (to conclusion)> >Problem>Solution
E-RRRA 002	Opposition	Title>Criticism (to report) > Criticism (to method)> Criticism (to conclusions)> Social acknowledgement/focus> Problem>Solution
E-RRRA 003	Opposition	Title>Background knowledge> Criticism (to method)> Question raising
E-RRRA 004	Opposition	Title>Effect>Problem>Solution>Effect> Problem>Solution>Effects> Call for action (hope) > Criticism (to editors)
E-RRRA 005	Support	Title>Effects>Own research> Implications>Implications
E-RRRA 006	Opposition	Title>Situation>Background knowledge> Background knowledge> Problem>Solution> Criticism (to method) > Call for change (sugestion)

E-RRRA 007	Opposition	Title>Salutation>Criticism (to method)> Implications>Criticism (to results)> Criticism (to results)> Criticism (to report)> Conclusion

E-RRRA 008	Opposition	Title>Criticism (to method)>Suggestion> Evidence>Word of warning>Conclusion

E-RRRA 009	Support	Title>Salutation>Clarification> Word of warning>Effects> Implications>Criticism (to results> Clarification>Evidence> Call for action (need)> Criticism (to results)>Conclusion

E-RRRA 010	Support	Title>Social acknowledgment/focus> Background knowledge> Criticism (to results)

E-RRRA 011	Opposition	Title>Criticism (to editors) > Criticism (to methodology) > Criticism (to conclusions)

E-RRRA 012	Opposition	Title>Salutation> Background knowledge/focus> Evidence>Criticism (to method)> Question raising> Criticism (to interpretation)> Evidence>Implications> Problem>Background knowledge>

		Criticism (to method)>conclusion> Call for change (advice)

E-RRRA 013	Support	Title>Social acknowledgement/focus> Background knowledge> Suggestion>Background knowledge> Evidence>Evidence>Evidence> Interpretation>Evidence> Conclusion>Call for change (suggestion)

E-RRRA 014	Opposition	Title>Criticism (to validity)>Solution> Problem>Situation> Question raising> Criticism (to results)>Problem

E-RRRA 015	Opposition	Title>Salutation>Social acknowledgment/focus Situation>Effect> Call for action (prediction)

E-RRRA 016	Support	Title>Salutation>Background knowledge> Problem>Social acknowledgement/focus> Own research>Solution

E-RRRA 017	Opposition	Title>Criticism (to report)>Problem>Solution> Evidence>Background knowledge> Own experience>Evidence>Interpretation> Word of warning> Call for change (advice, suggestion)

E-RRRA 018	Opposition	Title>Social acknowledgment/focus> Criticism (to method) >Criticism (to report) Criticism (to results)>Effect>

		Criticism (to method)> Call for change (urge)>Problem> Call for change (need)

E-RRRA 019	Support	Title>Social acknowledgment/focus> Situation>Criticism (to validity)> Situation> Indication of a gap>Question raising

E-RRRA 020	Opposition	Title>Social acknowledgment/focus> Criticism (to method)>effect> Background knowledge>Effect

E-RRRA 021	Support	Title>Social acknowledgment/focus> Situation>Own research> Word of warning>Conclusion> Situation>Call for change (suggestion)

E-RRRA 022	Opposition	Title>Social acknowledgment/focus> Evidence>Indication of a gap> Criticism (to conclusion)> Own research>Evidence> Background knowledge>Evidence> Interpretation>Criticism(other)>implications> Criticism (to results)>Evidence>Conclusion

E-RRRA 023	Opposition	Title>Salutation>Criticism (to method> Evidence>Criticism (to conclusion)>Evidence> Effects>Evidence>Evidence> Conclusion>Gap

E-RRRA 024	Reply	Title>Social acknowledgment>Clarification>

		Criticism (to results)>Interpretation> Background knowledge>Interpretation> Criticism (other)>Conclusion> Criticism (other)

E-RRRA 025	Opposition	Title>Social acknowledgment/focus> Criticism (to method)> Criticism (to results)>Background knowledge> Criticism (to results)>Conclusion

E-RRRA 026	Opposition	Title>Social acknowledgement/(focus)> Question raising>Question raising> Criticism (to results)>Question raising

E-RRRA 027	Reply	Title>Clarification>Call for change (urge)> Criticism (to results)>Clarification> Gap>Conclusion

E-RRRA 028	Opposition	Title>Social acknowledgment/focus> Criticism (to conclusion)> Background knowledge>Evidence>Evidence> Evidence>Criticism (to results)> Criticism (to results)> Criticism (to method)> Background knowledge>Conclusion> Criticism (to conclusion)

E-RRRA 029	Support	Title>Social acknowledgment/focus> Own experience>Effects

E-RRRA 030	Opposition	Title>Salutation>Social acknowledgment/focus Background knowledge> Evidence>Evidence>Evidence>Evidence>

		Call for change (must)

E-RRRA 031	Reply	Title>Salutation> Social acknowledgement/focus Evidence>Evidence>Evidence>Evidence> Interpretation>Evidence> Criticism (to epistemology)> Criticism (to epistemology)

E-RRRA 032	Opposition	Title>Social acknowledgement/focus> Evidence>Evidence>Evidence>Evidence> Counterclaiming>Criticism (to interpretation) Evidence>Evidence>Evidence> Background knowledge> Call for change (urge)> Criticism (to method)> Criticism (to epistemology)> Counterclaiming>Criticism (to method)> Criticism (to results)> Conclusion>Conclusion

E-RRRA 033	Opposition	Title>Social acknowledgment/(focus)> Criticism (to method)>Effect>Solution> Problem>Conclusion

E-RRRA 034	Opposition	Title>Social acknowledgement/focus> Effect>effect> Criticism (to method)> Conclusion

E-RRRA 035	Opposition	Title>Question raising>Answer>Own research> Criticism (to conclusion)>Effect> Call for change(need)>Effect>Conclusion>

		Call for change (advice)>Own research

E-RRRA 036	Opposition	Title>Background knowledge>Case>Effect> Question raising>Question raising>Conclusion

E-RRRA 037	Support	Title>Salutation> Social acknowledgement/focus Own research>Own research>Own research> Situation>Interpretation>Conclusion

E-RRRA 038	Support	Title>Agreement>A word of warning> Background knowledge>Effect> Evidence>Evidence>Evidence>Gap>Gap> Question raising>Question raising> Social acknowledgment/focus> Call for change (advice)>A word of warning

E-RRRA 039	Support	Title>Agreement>Question raising> Background knowledge> Question raising>Background knowledge> Question raising> Call for change (suggestion)

E-RRRA 040	Opposition	Title>Salutation>Background knowledge> Problem>Effect>Solution

E-RRRA 041	Opposition	Title>Evidence>Evidence>Effect>Effect> Background knowledge>Evidence>Conclusion

E-RRRA 042	Support	Title>Social acknowledgment/focus>Situation> Call for change (need)>Problem>Evidence> Question raising>Question raising>Conclusion>

		Call for change (urge)

E-RRRA 043	Support	Title>Social acknowledgement/focus>Situation Problem>Situation>Solution

E-RRRA 044	Support	Title>Social acknowledgement/focus> Problem>Question raising> Situation>Situation>Gap>Solution

E-RRRA 045	Opposition	Title>Salutation> Social acknowledgement/focus> Counterclaiming>Interpretation> Evidence>Evidence>Conclusion> Call for change (urge)

E-RRRA 046	Opposition	Title>Social acknowledgment/focus> Criticism (to report)>Clarification> Criticism (to method)>Problem> Criticism (to conclusion)>Solution

E-RRRA 047	Reply	Title>Salutation>Social acknowledgment/focus Clarification>Question raising> Criticism (other) Acknowledging limitation>Counterclaiming>

E-RRRA 048	Support	Title>Background knowledge>Effect> Background knowledge>Effect

E-RRRA 049	Support	Title>Salutation>Social acknowledgment> Situation>Question raising> Question raising>Effect> Call for change (advice)>Effect>Gap

E-RRRA 050	Reply	Title>Salutation>Social acknowledgment> Agreement>Clarification> Background knowledge>Situation> Effect>Background knowledge> Clarification>Implication> Clarification>Acknowleging limitations> Situation>Situation>Interpretation> Call for change (advice)> Call for change (hope)> Conclusion>Effect> A word of warning> Call for change (other)>Gap Call for change (need)

E-RRRA 051	Opposition	Title>Salutation>Question raising> Criticism (to method)>Problem>Solution> Clarification>Criticism (to method)> Criticism (to method)> Criticism (to replicability)

E-RRRA 052	Reply	Title>Salutation>Social acknowledgment/focus Clarification>Question raising>Answer> Clarification>Clarification>Question raising> Answer>Clarification>Question raising>Case> Clarification

E-RRRA 053	Opposition	Title>Social acknowledgment/focus> Criticism (to method)> Criticism (to conclusion)

E-RRRA 054	Opposition	Title>Salutation>Social acknowledgment/focus Criticism (to method)>

		Criticism (to method)> Call for change (prediction)

E-RRRA 055	Support	Title>Social acknowledgment/focus> Criticism (to results)>Situation>Evidence> Evidence>Evidence>Evidence>Effect>Effect> Call for change (advice)

E-RRRA 056	Opposition	Title>Social acknowledgment/focus> Criticism (to results)>Situation> Criticism (to method)>Situation> Criticism (to interpretation)> Implication> Criticism (to method)> Question raising> Criticism (to method)> Question raising>Criticism (to conclusions)> Criticism(to interpretation)> Call for change (suggestion)>Effect>effect

E-RRRA 057	Support	Title>Social acknowledgment/focus>Gap> Evidence>Evidence>Call for change (urge)

E-RRRA 058	Support	Title>Salutation>Social acknowledgment/focus Evidence>Background knowledge>Gap

E-RRRA 059	Opposition	Title>Salutation>Social acknowledgment/focus Question raising>Answer

E-RRRA 060	Opposition	Title>Social Acknowledgement/focus> Criticism (to method)>Implications> Criticism (to method)>Evidence>Evidence> Criticism (to conclusion)> Criticism (to validity)>

		Effect>Call for change (need)

E-RRRA 061	Reply	Title> Social Acknowledgement/focus> Background knowledge>Question raising> Clarification>Comment> Acknowledging limitations>Conclusion> Problem>Evidence>Situation> Call for change (advice)>Effect

E-RRRA 062	Opposition	Title>Criticism (to results)> Criticism (to method)> Criticism (to interpretation)>Evidence> Criticism (to conclusion)

E-RRRA 063	Opposition	Title>Own research>(results)

E-RRRA 064	Opposition	Title> Social Acknowledgement/focus> Criticism (to method)>Question raising> Answer>Conclusion>Criticism (to method)> Criticism (to conclusion)

E-RRRA 065	Opposition	Title> Social Acknowledgement/focus Criticism (to method)> Criticism (to method)> Criticism (to method)>Criticism (to method) Criticism (to method)>Criticism (to method) Criticism (to method)>Evidence>Evidence> Evidence> Criticism (to method)> Criticism (to method)>Conclusion

E-RRRA 066	Opposition	Title> Social Acknowledgement/focus> Criticism (to method)>Criticism (to method) Criticism (to method)>Own research>

		Criticism (to method)>Criticism (to report)> Criticism (to method)>Background knowledge> Evidence>Criticism (to method)> Criticism (to method)>Evidence> Criticism (to results)>Own research> Criticism (to results)>Clarification> Criticism (conflict of interest)> Disagreement>Gap

E-RRRA 067	Support	Title> Social Acknowledgement/focus> Criticism (to results)>Criticism (other) Question raising> Criticism (other)>Question raising>Gap

E-RRRA 068	Opposition	Title>Criticism (to method)>Problem>Effect> Solution>Criticism (to editors)> Background knowledge>Question raising> Criticism (to interpretation)> Own experience>Interpretation> Question raising>Question raising

E-RRRA 069	Opposition	Title>Salutation> Social acknowledgement/focus> Criticism (to results)>Own experience> Own experience>Conclusion

E-RRRA 070	Reply	Title> Social acknowledgement/focus> Acknowledging limitations>Agreement> Clinical practice> Call for change (urge)> Background knowledge>Conclusion

E-RRRA 071	Opposition	Title>Agreement>Criticism (to method)> Criticism to (editors)>Criticism (other)> Criticism (to report)>Own research> Criticism (other)>Situation>Conclusion> (dis)agreement>Background knowledge> Own research> Criticism (to conclusion)>Effects>Effects> Own research>Criticism (to method)> Call for change (advice)>Conclusion

E-RRRA 072	Reply	Title>Salutation> Social Acknowledgement/focus> Clarification

E-RRRA 073	Support	Title>Salutation> Social acknowledgement/focus>Evidence> Background knowledge>Evidence> Evidence>Evidence>Evidence>Evidence> Conclusion>Effects>Question raising> Background knowledge>Evidence>Evidence> Effects>Background knowledge>Gap>Gap> Gap>Call for change (suggestion)> Call for change (advice)> Call for change (advice)

E-RRRA 074	Support	Title>Social acknowledgement/focus> Interpretation>Background knowledge> Situation>Background knowledge> Call for change (suggestion)> Evidence>Evidence> Own experience

E-RRRA 075	Opposition	Title>Salutation> Social acknowledgement/focus> Criticism (to method)>Problem> Solution> Criticism (to method)> Criticism (to results)> Question raising

E-RRRA 076	Support	Title> Social acknowledgement/focus> Own experience>Situation> Background knowledge>question raising> Call for change (urge)>Question raising

E-RRRA 077	Opposition	Title>Social acknowledgement/focus> Criticism (to method)> Question raising>Criticism (to report)> Criticism (to method)> Question raising>Criticism (to report)> Criticism (to method)> Criticism (to method)> Criticism (to validity)>Conclusion> Conclusion>Counterclaiming

E-RRRA 078	Reply	Title> Social acknowledgement/focus> Background knowledge>Clarification> Acknowledging limitations>Gap> Clarification>Counterclaiming> Clarification>Counterclaiming

E-RRRA 079	Opposition	Title> Social acknowledgement/focus> Situation>Criticism (to results)> Criticism (to results)>Criticism (to conclusion)> Counterclaiming>Situation>Situation>

		Comment>Conclusion> Criticism (to results)> Call for change (suggestion)

E-RRRA 080	Support	Title> Social acknowledgement/focus> Problem>Situation>Call for change (hope)> Effect>Call for change (urge)>Situation> Conclusion

E-RRRA 081	Opposition	Title>Salutation> Social acknowledgement/focus> Criticism (to results)>Situation> Question raising>Criticism (to method)> Criticism (to method)> Situation>Counterclaiming>Conclusion> Call for change (prediction)

E-RRRA 082	Opposition	Title> Social acknowledgement/focus> Effects>Criticism (to method)> Question raising>Question raising>Answer> Situation>Question raising> Criticism (to editors)>Criticism (to editors)> Call for change (suggestion)

E-RRRA 083	Opposition	Title>Social acknowledgement/focus> Criticism (to method)>Criticism (to method)> Problem>Solution>Criticism (to results)> Criticism (to method)>Criticism (to results)> Criticism (to editors)

E-RRRA 084	Support	Title>Situation>Conclusion>Problem> Call for change (urge)

E-RRRA 085	Opposition	Title>Criticism (to report)> Criticism (to method)>Criticism (to report)> Question raising>Question raising> Criticism to method)> Criticism to method>Criticism (to report)> Criticism (to conclusion)> Criticism (to method/results)

E-RRRA 086	Opposition	Title>Criticism (to conclusion)> Question raising

E-RRRA 087	Opposition	Title>Salutation>Criticism (to editors)> Criticism (to method)>Criticism (to method)> Criticism (to method)>Criticism (to editors)> Effect>Conclusion

E-RRRA 088	Opposition	Title>Situation>Call for change (urge)> Criticism (to conclusion)>Criticism (to method) Own experience>Agreement> Call for change (urge)

E-RRRA 089	Opposition	Title> Social acknowledgement/focus> Criticism (to results)> Criticism (to Editors)> Criticism (to method)> Criticism (to method)> Criticism (other)>Situation> Criticism (to method)>Criticism (to editors)

E-RRRA 090	Opposition	Title>Background knowledge> Criticism (to editors)>Background knowledge> Question raising> Criticism (to conclusion)> Conclusion

E-RRRA 091	Opposition	Title> Social acknowledgement/focus> Criticism (to editors)>Counterclaiming> Situation>Conclusion

E-RRRA 092	Support	Title> Social acknowledgement/focus> Effect>Own experience>Problem>Solution> Call for change (suggestion)> Situation>Effects

E-RRRA 093	Support	Title> Social acknowledgement/focus> Counterclaiming>Situation>Evidence

E-RRRA 094	Opposition	Title>Salutation>Criticism (to editors)> Criticism (to editors)>Situation>Interpretation> Criticism (to method)>Counterclaiming> Solution>Criticism (to editors)>Closure

E-RRRA 095	Reply	Title> Social acknowledgement/focus> Clarification>Background knowledge> Clarification>Clarification>Own experience> Conclusion>Acknowledging limitations> Background knowledge>Agreement> Conclusion

E-RRRA 096	Opposition	Title> Social acknowledgement/focus> Criticism (to method)>Criticism (to editors)> A word of warning>Background knowledge> Criticism to editors> Call for change (hope)

E-RRRA 097	Support	Title> Social acknowledgement/focus>

		Clarification>Counterclaiming>request> Situation>Question raising>Effects>Effects

E-RRRA 098	Opposition	Title>Salutation> Social acknowledgement/focus> Criticism to (editors)>Agreement> Question raising>Criticism (to editors)> Criticism (to editors)>Background knowledge> Situation>Backgroundknowledge>Effect> Call for change (urge)>Closure

E-RRRA 099	Opposition	Title>Salutation> Social acknowledgement/focus> Criticism (to method)>Criticism (to validity)> Criticism (to method)>Effect>Question raising> Question raising> Question raising> Question raising> Question raising> Situation> Criticism (to interpretation)> Criticism (to editors)>Situation> Question raising> Criticism (to editors)> Question raising>Closure

*E-RRRA*100	Opposition	Title>Salutation>Solution>Closure