

A syntactic perspective on rhetorical purpose: The example of *if*-conditionals in medical editorials

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Abstract

This paper provides an in-depth analysis of the functioning of *if*-conditionals in medical editorials (MEDs). As previous genre-based studies of medical discourse genres have shown, MEDs need to address at least three different types of readers and are thus a research-oriented, socio-political and praxis-oriented genre. Medical editorialists therefore need to customize their argumentative strategies in order to reach and convince these distinct readerships. Our aim is to adopt a syntactic perspective on rhetorical purpose, by focusing on a syntactic pattern which has a potentially important role to play in the construction of argument: the *if*-conditional. By examining the syntactic variants of the structure in MEDs we demonstrate the correspondence between seemingly minor constructional variants and the rhetorical aims of the genre in question. A comparison between the research article and MED usages moreover helps us to identify the form-function pairings specific to the editorials and in this way pinpoint how the *if*-conditional forms are used to serve the specific argument strategies of the MED genre.

Keywords: *if*-conditionals, medical editorials, rhetorical purpose, syntactic variants, genre.

Resumen

Una perspectiva sintáctica a propósito de las estrategias de persuasión: el ejemplo de las frases condicionales de tipo "if" en los editoriales médicos en inglés

Este artículo propone un análisis pormenorizado del funcionamiento del modo condicional en *if* en los editoriales médicos escritos en inglés (*MEDs* en inglés). Como lo han demostrado otros trabajos que tratan del discurso médico elaborados dentro de una perspectiva de género, los *MEDs* están dirigidos a,

como mínimo, tres tipos de lectores y, por tanto, se trata de un género orientado a la investigación, a la práctica y de carácter socio-político. Los autores de los editoriales médicos necesitan pues adaptar sus estrategias argumentativas para personalizar y convencer a estos tres tipos específicos de lectores. Nuestro objetivo es proponer una perspectiva sintáctica a propósito de estas estrategias de persuasión focalizándose en una estructura de sintaxis que juega un papel muy importante en el desarrollo de la argumentación: la frase condicional en *if*. A través de un análisis de diversas variantes de la estructura condicional en los *MEDs* se demuestra que existen correspondencias entre ciertas variantes construccionales supuestamente de menor importancia y las estrategias como los objetivos retóricos del género indicado. Una comparación con otro género científico, el artículo de investigación, nos permite además identificar mejor las asociaciones función/forma que son específicas de los editoriales y determinar de esa manera como están empleadas las frases condicionales en *if* para que logren sus estrategias de persuasión propias de los *MEDs*.

Palabras clave: editoriales médicos, estrategias de persuasión, frases condicionales de tipo “if”, variantes sintácticas, géneros discursivos.

1. Introduction

Editorials are probably the most visible expression of opinion in written media discourse. Given their important role in leading and shaping opinion, editorials in the general or political press have particularly attracted the attention of analysts in the Critical Discourse Analysis tradition seeking to uncover the ideological agendas behind the arguments: “editorial argumentation, even when seemingly explicit, is often a front for another argumentative agenda” (van Dijk, 1992: 253). While this ideological purpose is clear in the case of the political press, it is perhaps less obvious for other social groups. Ideologies however, taken in the broad sense of the term, are not limited to groups with an overtly political platform: professional and institutional groups in society also have structured and goal-oriented interests to defend, defined by the professional identity, norms and values, social position and resources of the group in question. A powerful professional group in western societies is the medical profession. It is a profession with highly selective access and elite status, extensive social relevance, and a strong corporate sense of identity, possessing its own internal regulatory bodies. It comes as no surprise, therefore, that the specialised journals of this professional group also include editorials as a regular feature (Webber, 1994).

The various studies focusing on the medical editorial (henceforth MED) genre appear to agree on a certain number of characteristic features, which clearly distinguish this genre from others found in medical journals, such as the research article (RA), case report, or review article. Within the system of genres (Bazerman, 1994), there is considerable interaction between the different genres. This relationship is one of “functional intertextuality” in that each genre has a different function within the medical profession (Vihla, 1999: 129). The main role of the RA, for example, is to put forward claims, based on research investigations; these claims can then be subjected to assessment within the profession in editorials: “In the textual hierarchy formed by medical genres, editorials often function as metatexts, and comment on other texts” (Vihla, 1999: 126). These comments are frequently couched in highly critical and authoritative terms. Salager-Meyer (2001), for example, in a cross-generic study of four medical genres, places editorials at the most “polemical” pole of a cline ranging from blunt criticism to absence of dissension. Likewise, Carnet and Magnet (2006: 243) conclude that MEDs appear as highly ideological, sharing “a strong polemical similarity with editorials from the general press”.

1.1. The three agendas of medical editorials

In addition to this comment function which MEDs share with editorials in general, three more specific functions appear to characterize the genre, reflecting the three distinct readerships of medical journals. Giannoni (2008: 98) sums these functions up as follows:

[MEDs] act as expert introductions to relevant topics dealt with in the journal; they offer critical commentary on events of shared interest to the medical community; and finally they provide guidelines for practitioners, helping them to recognise best practices and suitable references in the literature.

We will refer to these different communicative purposes as, respectively, a research-oriented agenda, a socio-political agenda, and a praxis-oriented agenda.

The research agenda is reflected in the fact that MEDs are published in research journals, where they co-occur with RAs presenting cutting-edge medical research. Unlike hard sciences, however, medicine is as much an art as a science: conclusions are based to a large extent on observational

evidence and probabilistic reasoning, in which the interpretations of research results can vary. Moreover, its ultimate goal is the treatment of patients, so the applicability of research to real-world situations needs to be carefully examined. Editorials, which are situated at the interface between research and praxis, have an important role to play here in assessing the relative merits of research claims and hypothesizing about the possible consequences or follow-up to give to research findings.

The editorials of reputed journals are also addressed to socially influential actors outside or on the periphery of the medical profession, however – such as governments, hospital administrators and pharmaceutical companies – and therefore have a socio-political agenda or axe to grind. Questions such as the public funding of medicine, medical education and training, laws regulating cloning and biomedical research, pharmaceutical R&D into new drugs, etc. all have a direct impact on medicine, and depend on decisions taken by institutions or professional bodies not directly controlled by the medical profession itself.

Lastly, editorials are also addressed to medical practitioners, and have a praxis-oriented agenda. The breakthroughs of medical research, if applied incautiously, can have deleterious or even fatal consequences in practice, and so need to be implemented with proper caution, in strict conformity with the rigorous ethical and clinical rules of conduct of the profession. Medicine as a body regulates its own conduct and requires all practitioners to observe the deontology of the profession; prescriptive pronouncements and recommendations addressed to peers and practitioners in the profession itself are therefore admissible or even necessary in this discipline, in order to ensure that these norms are respected in clinical praxis.

These three agendas call on a wide range of argumentative strategies, as editorialists engage in evaluation and criticism, hypothesising, promotion and persuasion, but also recommendation, prescription, and warning. While certain linguistic features of MEDs have been pointed out (modality – Vihla, 1999; rhetorical questions – Salager-Meyer, 2001; tenses, modality and negation – Carnet & Magnet, 2006; first person markers – Giannoni, 2008), there has been little in-depth investigation into the syntactic resources exploited by MEDs to achieve their rhetorical aims. Our aim in the present study is to adopt a syntactic perspective on rhetorical purpose, focusing on a syntactic pattern which has a potentially important role to play in the construction of argument: *if*-conditionals.

If-conditionals can fulfil several highly valuable functions in argumentative discourse: the inherent non-assertiveness of conditional clauses means that they can be used for hypothesising and hedging (Carter-Thomas, 2007), for envisaging alternatives and conceding competing points of view (Declerck & Reed, 2001; Warchal, 2010); the role of *if* as a space-builder (Fauconnier, 1994; Dancygier, 1998) enables the author to set up an alternative argumentative space within which to manoeuvre and situate claims, while the constructional *if P, Q* pattern can be exploited to establish causal links or specify the precise conditions under which the research was carried out. By comparing how *if*-conditionals are used in RAs and MEDs published in journals in the same disciplinary context, we show how the same basic formal structure can be adapted in different ways for different agendas.

1.2. Theoretical background

The study of conditionals has been approached from a variety of angles. Numerous typologies and classifications have been proposed by philosophers, linguists and grammarians, based on logical or truth implications (Lewis, 1976), on the conceptual domains or worlds to which the content of the conditional refers (Sweetser, 1990), on semantic distinctions (Comrie, 1986) or on simplified verb-sequences, as is generally the case in pedagogical grammars. Many of these classifications prove however difficult to apply in practice.

The idealised tense sequences of pedagogical grammars have been found to provide only a very partial picture of the multitude of combinations that speakers actually use (Fulcher, 1991; Norris, 2003; Rowley-Jolivet & Carter-Thomas, 2008). Classifications revolving around issues of logic and truth are likewise difficult to apply to naturally occurring text. Other more functionally based classifications such as those of Sweetser (1990) or Athanasiadou and Dirven (1997) also proved difficult to apply to specialised texts. One difficulty with these classifications, as with several others, is that they are mainly based on decontextualised examples. With a few notable exceptions such as that of Ford's (1997) study of conditionals in conversation and the panoramic overview of Declerck and Reed (2001) based partly on the Cobuild and Lancaster-Oslo-Bergen (LOB) corpora, very few of the existing typologies are based on real data or corpora. The *if* operator is however notoriously polysemous and context-sensitive. In order to evaluate the role of *if*-conditionals in discipline-specific forms of argumentation a fully contextualised

approach appears essential. In Akatsuka's (1986: 333) words, "conditionals are discourse-bound".

Our own approach is genre-based. One of the basic postulates of a genre approach is that the communicative aims and context of the discourse impact both on the overall textual organization and on the syntactic strategies adopted by writers and speakers. In our previous work on the *if*-conditional (Rowley-Jolivet, 2007; Carter-Thomas & Rowley-Jolivet, 2008), we examined this construction from a genre perspective, contrasting its use in various medical genres (RAs, case reports, conference presentations and editorials). This work not only demonstrated major divergences with what is usually predicted in the "theory" on conditionals, but established that *if* conditionals are used in highly genre-specific ways, both formally and functionally speaking.

In the present study, our aim is to take a close look at the syntactic variants of this structure in MEDs in order to demonstrate the correspondence between seemingly minor syntactic variants and the rhetorical aims of the genre in question. As Warchał (2010) has demonstrated, *if*-conditionals can have a strong interpersonal component, guiding the reader's interpretation, negotiating concepts, staving off criticism and generally involving the reader. It is these rhetorical aspects of *if*-conditional use that we will focus on in the remainder of the article, examining how the choice of particular formal and syntactic variants of the conditional serves the rhetorical purposes of specialised medical editorials.

2. Corpus and methodology

The corpus used for this study comprises 171 occurrences of *if*-conditionals taken from 74 editorials in two high impact factor medical journals. These occurrences are contrasted with 119 occurrences of *if*-conditionals taken from 30 research articles on the same topics, again in leading medical journals (see Table 1). Although small in comparison with modern general corpora nowadays, our specialised corpus is we believe both large enough to be representative of this specialised discourse and small enough for us to implement the fully contextual approach we are advocating (Ghadessy, Henry & Roseberry, 2001).

Although conditionality can be expressed in many ways, our study is restricted to *if* as the prototypical operator of conditionality in English.

Other conditional subordinators were consequently ignored. Care was also taken to manually discard any occurrences where *if* introduced a subject or object clause (and was therefore the equivalent of *whether*), as in the following example:

- (1) Unfortunately, there have been no randomized trials that have determined if (=whether) a clinically relevant graft-versus-lymphoma effect exists. (MED)

However elliptical *if*-clauses (“if possible”, “if necessary”), a frequent feature in medical discourse, were included. The frequency of *if* per 1000 words of running text was calculated for both genres and the details of this breakdown are given below.

	Editorials	Research articles
# texts	74	30
# occ	171	119
# words	95,143	111,907
Ratio <i>if</i> /1000w.	1.8	1.06
Source ²	JCO & LO	JCO & IJRO

Table 1. Corpus details.

As Table 1 shows, *if*-conditionals are more frequent in the editorials than in the research articles. Our figures tally with those of Ferguson (2001) who found an identical ratio of 1.8 *if*-conditionals per 1000 words in MEDs and a very similar 1.1 ratio in RAs. It would seem therefore that medical editorialists have greater recourse to *if*-clauses than RA authors. However, the precise form and use of these constructions remain to be verified. In the following sections we will look first at the verb forms in the basic *if* *P*, *Q* pattern and their meanings and then at constructional variants with the subsequent nuances they introduce.

We begin by examining all the verb forms employed in the *if* *P*, *Q* conditionals, comparing the use made of the canonical verb sequences and identifying the preferred verbal combinations in the two genres, MEDs and RAs. We then focus on a number of variations observed in the basic *if* *P*, *Q* constructional pattern, involving the addition of specific lexemes or specific punctuation. Following Dancygier (1998), we take the view that conditional constructions are compositional in meaning. Different formal choices in the basic constructional pattern can be associated with specific functions and meanings, thereby constraining interpretation.

Throughout the analysis this focus on the formal features of *if*-conditionals will therefore be constantly related to the particular rhetorical functions fulfilled by the construction in the genre and discourse context. A comparison between the RA and editorial (ED) usages will help us to identify the form-function pairings particular to the editorials and in this way pinpoint how the *if* *P*, *Q* forms are used to serve the specific argument strategies of the MED genre.

3. Results

3.1. Verb Forms

3.1.1. Canonical conditionals

Discussion of verb forms in conditionals is often restricted to three “canonical” sequences, in which the verb forms index increasing degrees of hypotheticality: 1) present + future; 2) past + “conditional”; 3) past perfect + “conditional” perfect (see examples (2)-(4) below). As indicated earlier, many analysts consider that these sequences give only a very partial picture of actual discourse use. Their frequency in our data is shown in Table 2.

	MEDs	RAs	Total
Canonical 1	18	2	20
Canonical 2	14	4	18
Canonical 3	5	1	6
All canonical forms (1, 2, 3)	37 (21.6%)	7 (5.9%)	44 (15.2%)
Total occ. of <i>if</i> -conditionals	171	119	290

Table 2. “Canonical” tense sequences in medical editorials and research articles.

As can be seen the MEDs contain far more canonical forms than the RAs. This distributional difference can be largely explained by the importance of hypothesising and predicting in the editorials. Through such patterns editorialists fulfil their role of opinion-leaders, engaging in predictive, speculative or highly critical pronouncements on research claims or on the socio-economic and legislative environment of medicine.

All the type 1 canonicals in the MEDs are used to make predictions concerning socio-economic issues such as the provision of medical services and their funding, legislation, developments in trials and drug marketing, and medical education:

- (2) If the current reliance on screening continues to increase, then the demands on colonoscopists' time will become overstretched and the financial consequences will be too great for the US health-care system. (MED)

Unlike research investigations in RAs into the causes, diagnosis and treatment of disease, where certainty is much more difficult or even impossible to attain, in the economic or legislative domain, medical editorialists feel confident enough of causal relations to use predictive *if P, Q* clauses.

The greater recourse to type 2 and 3 canonicals, expressing varying degrees of hypotheticality, can likewise be explained by the argumentative aims of MEDs: "to raise questions, diagram problems, propose definitions and offer alternatives and/or solutions for future research, (...) examine, discuss and criticize" (Salager-Meyer et al., 1989: 153). Medical editorials address "hot" or controversial issues for which there is often no clear-cut solution, or confront results by different research teams which give rise to diverging interpretations. For all these hypothesising functions, *if*-clauses are an invaluable syntactic resource:

- (3) Are these sufficient data to accept the fact that carcinomatosis from gastrointestinal cancer can be cured in selected patients? If this were true, it would be a major step forward for oncology. Natural history studies suggest a survival of approximately 6 months. (MED)

The majority of Type 2 and all occurrences of Type 3 canonicals in the editorials are counterfactuals. Counterfactuals are a prime example of the role of *if* as a space-builder. This hypothetical thinking enables the speaker to envisage the possible consequences of situations which either did not in fact occur in the past or which do not currently hold (Akatsuka & Strauss, 2000). The aim of this space-building will often be an evaluative one: if these counterfactual situations are entertained, it is in order to judge, criticise or, more rarely, to commend the actual decisions or behaviour of the actors involved. The reason why counterfactuals are found exclusively in the editorials and not in the RAs seems to lie in the different rhetorical aims of the two genres. Researchers could be considered to be undermining the strength of their research claims if they gave too much prominence to other hypothetical spaces: to what could or could not have been done in alternative

approaches. Editorialists, in contrast, are not defending their own research claim. Counterfactuals enable them to express criticism of others' work, or regret that a certain avenue was not explored:

- (4) In the context of previous trials in solid tumors that have failed to demonstrate an effect of maintenance therapy on survival, one needs to consider the question of what the likely outcome would have been if the primary end point of this study had been survival, and the study had been continued despite the emergence of a statistically significant difference in progression-free survival. (MED)

In example (4) the editorialist criticises the study, which was stopped too soon to provide data on survival – the primary end-point in oncology – and relativizes its positive results.

The degree of tense backshifting in the P clause indicates the degree of commitment to the likelihood of the counterfactual situation – the more backshifted the verb form, the greater the authorial distance. In (4), the counter-evidence is extremely strong as the author is hypothesising about known, and hence irreversible past facts; type 3 canonicals are therefore used. In (3), in contrast, tense backshifting is less marked as the “factual” status of the assertion (that carcinomatosis from GI cancer can be cured), although questionable – as shown clearly by the preceding interrogative – cannot be entirely excluded at the time of writing, given the lack of data.

3.1.2. Other verb sequences

Although canonical forms play a significant role in the editorial, the MEDs as well as the RAs also contain a rich variety of other verb combinations. The most important of these are shown in Table 3.

Verb sequence P + Q	MEDs n (%)	RAs n (%)
Truncated forms	27 (15.8)	17 (14.3)
Past + past	3 (1.8)	61 (51.2)
Past + modal	12 (7)	4 (3.4)
Past perfect + past	0	4 (3.4)
Present + present	43 (25.1)	10 (8.4)
Present + modal	38 (22.2)	9 (7.5)
Present + past	2 (1.1)	2 (1.7)
Others	9 (5.3)	5 (4.2)
All	134 (78.3)	112 (94.1)

Table 3. Other verb sequences (excluding canonicals).

Both genres contain a number of what we have termed truncated forms, involving in the majority of cases partial or complete ellipsis of the P clause:

- (5) If clinically indicated, additional imaging studies were obtained (RA)

Such reduced verb forms allow the writer to achieve a greater economy of style. In the more argumentative discussion section of the RAs and particularly in the editorials, they also enable the writer to confront different voices by briefly encapsulating certain hypotheses, before forcefully presenting their own viewpoint:

- (6) Thus, an important question to be pursued from the report of Gamis et al is whether DS-AML cases older than 2 years lack prior history of TMD and GATA1 mutations? If so, it would clearly indicate a different biologic origin and possibly a difference in response (MED)

However, in general, the RAs and MEDs favour very different verb sequences. In the RAs, the majority of sequences involve a past tense in both the P and Q clauses and occur within the Methods section (see Carter-Thomas & Rowley-Jolivet, 2008). Authors use these *if*-clauses to refer to specific pieces of research carried out in their research teams:

- (7) The dose of paclitaxel was reduced by 20% if the patient had Grade 4 neutropenia that lasted >5 days (RA).

In the MEDs, in contrast, past tenses are rare; the argumentation is very much anchored in the present with nearly 50% of occurrences containing a present tense in one or both clauses. These forms are used to make generalisations and overviews (example 8), emit hypotheses (example 9) or to make rather authoritative pronouncements (example 10):

- (8) Currently, the average life expectancy of a 75-year-old woman is nearly 12 years (17 years if she is healthy), and that of an 85-year-old woman is nearly 6 years (9.6 years if she is healthy). (MED)
- (9) If the results reported by Mellado et al. are observed by other investigators, it is possible that detection of CMC could direct selection of high-risk patients for high-dose interferon therapy. (MED)

- (10) If the UK government's targets for health care are to be realised, the leadership needs to be bold. (MED)

In (10), the “if to be” structure further suggests not only a projection into the future, but also an evaluation of the desirability of the projected action (Declerck & Reed, 2001). However, in all three cases the present tenses are used as part of a commentary on the relevance of current practice rather than as part of any narrative focusing on a specific research project.

3.1.3. Modals

Medical discourse in general, as is well-known, is characterised by a high degree of hedging, in which modal forms play a large part (Prince, Frader & Bosk, 1982; Adams-Smith, 1984; Salager-Meyer, 1994). Vihla (1999) has also found modality to be even more marked in editorials than in RAs, a feature which she attributes to genre-dependent forms of argumentation. Whereas RA authors use “experimental justification” for their arguments, basing their conclusions on empirical evidence, argumentation in editorials is “interpretative”, relying on the writer's personal interpretation and opinions. Our corpus reflects this trend. As Table 4 shows, modal verbs³ are extremely frequent in the MED subset: 62% of Q clauses contain a modal, compared to only 25% in the RAs.

Modals in Q	MEDs n (%)	RAs n (%)
Total modal verbs ⁴	106 (62)	30 (25)
Of which canonicals	37 (21.6)	7 (5.9)

Table 4. Modals in the Q clause.

In addition to the three canonical conditionals discussed above, a wide range of modal values is found, but also with different distributions in the two genres. What has been called “dynamic” modality (Palmer, 1990) – referring to possibility or necessity that is imposed by circumstantial factors or a concrete situation – only appears with any frequency in the RAs, where evidential justification has more weight than the authors' personal opinion:

- (11) If FU had to be discontinued because of toxicity, the investigator could continue with single-agent oxaliplatin. (RA)

Deontic modals however are extremely rare (2 occurrences), indicating that RAs are not directly concerned with professional praxis.

In the editorials, in contrast, which bridge the gap between research and praxis, both epistemic and deontic modality is frequent. This frequent recourse to epistemic modality in *if*-clauses enables editorials to fulfil their metatextual role of evaluation, commenting on and assessing arguments expressed in previous texts, whilst at the same time making their own text more persuasive:

- (12) Such an approach is not new and might prove more acceptable if there were a plausible biologic rationale for using a particular clinical parameter. (MED)

Editorialists are expected to take a stand on issues and do not hesitate to make recommendations, with “must” being the most frequent choice here, and with slightly more hedged recommendations using “should”, “could”, “will” or “would”. Recommendations in the editorials concern two domains: firstly, legislative, social and financial aspects of medicine, or its socio-economic environment, where the writer is the spokesman for the medical community in its dealings with governments and institutions:

- (13) The legal situation in many countries needs to be clarified quickly, but this will only occur in a rational and sensible way if evidence-based conclusions are used to formulate new legislation. (MED)

Secondly, recommendations concern desirable changes to, or improvements in, current medical practices and procedures:

- (14) If one accepts these treatments as valid, major changes in the management of cancer patients with peritoneal seeding must be considered. In this approach ... (MED)

In this case the editorialist is giving advice not to outside partners, but to his medical peers.

3.2. Constructional variants of the *if P, Q* pattern in editorials

So far, we have considered only the default expression of *if*-conditionals: *if P, Q*. Not only however do verb forms impact on conditional meaning, but

there are also several other formal variants on the basic pattern, each of which imparts a particular shade of meaning. Lexemes such as “then”, “only”, and “even” can be added, and the interrogative form can be used in *Q* instead of the usual declarative⁵. Such variants occur with very different frequencies in the two genres: as can be seen in Table 5, they represent a significant proportion of all the *if*-conditionals in the editorials, accounting for 26% (44 occurrences), against only 7.5% (9 occurrences) in the RAs. They are, we contend, highly revealing about the argumentative strategies of the editorials. What several of these variants have in common is their potential for greater authorial control over readers’ opinions, either by minimising the tentativeness usually associated with the *if*-clause, or by negotiating agreement between writer and reader through a subtle management of polyphony, while still preserving the reader’s “face” thanks to the polite and non-assertive value of *if*.

	MEDs	RAs
<i>If P, then Q</i>	12	4
<i>Q only if P</i>	7	0
<i>Even if</i>	11	5
<i>If P, Q?</i>	14	0
TOTAL	44 (26%)	9 (7.5%)

Table 5. Constructional variants of *if*-conditionals in medical editorials and research articles.

3.2.1. If P, then Q

As Dancygier (1998) and Dancygier and Sweetser (1997) have argued, the presence of “then” in the *Q*-clause implies that *P* is the unique space in which *Q* is located or is valid, thereby excluding competing spaces and, as a result, constraining the interpretation that the reader can put on the *if* construction. In forcing a causal or strong dependency relation between the two clauses, the *if P, then Q* construction is more categorical than the simple *if P, Q* one. It implies an authorial *ethos* in which the text producer feels entitled to impose his reasoning process on the receiver. It is interesting to note, therefore, that in the RA, where the adoption of such a position of superiority by the author could be perceived as presumptuous, there are very few occurrences of the *if P, then Q* pattern, whereas one finds twelve occurrences in the editorials:

- (15) If the provision of such services is not kept in touch with the increasing number of cancer survivors, then the importance of quality of life in cancer will no longer be sustainable (MED)

Medical editorialists seem to have fewer qualms about adopting this type of authoritative voice, both towards outside partners (example 15) and towards their medical peers (example 16):

- (16) If, in addition, we do not have convincing evidence of antitumor responses, then we have little to guide our vaccine development (MED).

3.2.2. Q only if P (IFF)

This constructional variant occurs only in the editorials, as such an authorial stance would also undoubtedly be considered overbearing in the RAs.

The additional meaning imparted to the construction by this lexeme is similar to that of “then”, in that “only” excludes all other conditions apart from the one selected by the author, operating a closure or bounding of the theoretically open space of P, and again imposing a single interpretation on the reader. Thanks to the restrictive meaning of “only”, P is specified as the sufficient and necessary condition for Q.

- (17) The project will succeed only if there are enough adequately trained radiologists to operate the equipment and interpret the results (MED)

The “if and only if” interpretation is a pragmatic implicature of many ordinary *if P, Q* utterances, that is when the “only” is not voiced, and is generally referred to as conditional perfection (Horn, 2000). As with the *if P, then Q* construction, *Q only if P* positions the writer as someone authoritative, licensed to make definitive statements which foreclose all the other possible options that the reader might be tempted to entertain.

3.2.3. Even if P, Q and Q (,) even if P

The addition of “even” confers a concessive meaning on the *if*-conditional. The construction without *even* can sometimes be interpreted concessively, depending on the assumptions held by the interlocutors, as in Dancygier’s (1998: 165) example: “I would marry you if you were a monster from Mars”. Given the shared assumption that Martian monsters do not make attractive husbands, a concessive interpretation would be the normal one here. We have however only one occurrence of such “implicit” concessive

conditionals in our data; in all the other cases, the concessive relation is explicitly signalled by the presence of *even*.

Concessive conditionals are a very useful structure in argumentative discourse in general, as they enable the author to forestall objections to his argument. By using the form *Even if P, Q* or *Q even if P*, the author asserts Q whether the possible counter-argument in P is the case or not; conceding or appearing to concede P in fact strengthens the claim in Q, which is asserted to hold whatever the status of P. A few concessive conditionals are found in the RAs, almost exclusively in the discussion section. However, they are more common in the MEDs, where editorialists frequently confront and assess the relative merits of different arguments, as in the following example:

- (18) Even if a ban on smoking in public places only reduced the number of passive smokers presenting with tobacco-related diseases, a substantial saving would be made, both in human and economic terms. (MED)

3.2.4. Interrogative Q

The use of an interrogative form in Q, rather than the usual declarative, is a strong manifestation of attitudinal marking by the author, and occurs only in the editorials (see Table 5). Questions in general are much more frequent in editorials, as befits their objective of raising controversial issues. Webber (1994), in a study of questions in different medical journal genres, found that editorials and reviews combined contained nine times more interrogatives than the RAs. Hyland (2002) comparing questions in RAs, textbooks, and student reports, found them to be over twice as frequent in textbooks as in RAs, and proposed the following explanations for this difference: questions are dialogic, involving the reader in the text and in the author's argument, and are more overtly interactional; they also however exert a considerable degree of discourse control, since the questions asked are the ones chosen by the author and to which he or she has the answers, and are often used in fact to lead the reader in a particular direction. In the RA, questions would be felt to be condescending by many readers, as an egalitarian stance is expected. However, as already pointed out above, the writer-reader relation in editorials is also often an unequal one.

Both of these aspects – interaction and control – are apparent in the use that medical editorialists make of the *if P, Q?* construction, and indicate very

different argumentative strategies to those of RAs. Conditional questions, strategically placed in the opening (example 19) or concluding paragraph of the editorial, directly address the readers, involving them in a dialogue on a professional problem and inviting them to speculate on solutions in the hypothetical space opened up by *if*:

- (19) A number of barriers to recruitment [of patients in clinical trials] have been identified, with no singular, simple solution forthcoming. But if incremental gains are to be made, how could our current models of clinical trials expand to include significantly more patients? (MED)

In addition to its interactional utility, the *if P, Q?* variant can also be used to exert editorial control. A first point to note is that all the P-clauses are initial; the interrogative in Q is therefore performed against the background already set up by P. The function of the initial P-clause is to encapsulate certain assumptions that can be made from the preceding stretch of discourse, in order to provide a warrant for the question itself. This encapsulation can be done, however, either with a cooperative or with a critical intent, and the presuppositions of P are not the same in each case. An example of the former is:

- (20) [after a lengthy discussion of the advantages of combination therapy over single-agent therapy] If multiple agents are to be used, which other drugs have clear efficacy against PCNSL? (MED)

If P sums up the shared writer-reader assumptions from the preceding discourse, and the question in Q is one which the reader is likely to wish to ask at this juncture. It can be glossed as: “*If* [as you the reader and I the writer, now agree, though out of politeness I do not presume to assert that we agree] we need to use multiple agents”.

In other cases, however, this encapsulation has the critical intent of enabling the author to question, in Q, the assumptions in P. The writer summons into the text another voice in P, by recalling the claims of others, and then proceeds in Q to question these claims, both syntactically and rhetorically speaking. The following example could be glossed as “If [as authors X and Y claim, an incorrect claim in my opinion so one that I do not assert] a graft-versus-lymphoma effect exists ...”:

- (21) After the serious limitations of this analysis are taken into careful consideration, the question remains: If a graft-versus-lymphoma effect does exist, why was evidence of it not observed in this analysis? (MED)

From a polyphonic perspective, it is clear that the author does not take responsibility for the point of view that “a graft-versus-lymphoma effects exists”: the co-text is highly negative (“the serious limitations of this analysis”), the use of the *if* operator signifies that the concept evoked is non-assertable, adding the emphatic auxiliary “does” further heightens the doubt, and the negative question in Q directly challenges the contested claim. The *if P, Q?* construction has a clear refutative function here.

Examples (19)-(21) illustrate how the *if P, Q?* structure can be used persuasively to negotiate agreement between writer and reader and confront different points of view. The degree of control exercised by the editorialist over the dialogue with the reader can also on occasion be even greater:

- (22) If “fit elderly” patients can tolerate aggressive multimodality therapy, does this mean that all older patients should be treated this way? The answer is no. (MED)

By answering his own question, the editorialist explicitly funnels the debate, adopting a clear didactic stance towards his reader.

4. Conclusion

This close syntactic analysis indicates that there appears to be a consistent form-function pairing in the use of the *if*-conditional in medical EDs and RAs: the specific functions fulfilled by the medical editorial (see the introduction section of this paper) entail different frequencies of use of certain syntactic patterns, and the presence or absence of other syntactic variants of the *if* construction, compared to the RA. Although research articles and editorials can both be classified as argumentative professional discourse, their argument strategies, as illustrated through the form and use of *if*-conditionals, are very different.

If-conditionals in MEDs make considerably more use of the so-called canonical conditional forms than the RAs, principally for making predictions

and for hypothesising. Other verb sequences too are exploited very differently in the two genres. Whereas RA authors favour past tense sequences for reporting specific pieces of research, in MEDs the immediacy of the present tenses is preferred. Likewise both genres make very different use of modal verbs. Formal variations on the basic *If P, Q* pattern are also exploited very differently in the RAs and MEDs. Our medical editorials make consistently more use of the lexical variants: *if P, then Q, Q only if P, even if* and the interrogative form in Q (*If P, Q?*) than the RAs. The *if*-conditional adapts itself to the different argumentative strategies implemented in each of the three agendas – research-oriented, socio-political, and praxis-oriented: “The conditional (...) is not a creature of constant hue, but chameleon-like, takes on the colour of its surroundings” (Watson & Johnson-Laird, 1972: 92, quoted in Caron, 1979).

In accomplishing the research-oriented agenda, certain specific possibilities of the *if*-conditional construction that we have shown to be typical of editorials are particularly relevant:

- “canonical” conditionals 2 and 3 enable the author to open up a counterfactual space and propose alternatives to the researchers’ methods;
- the *if P, Q?* variant directly questions the claims put forward or the feasibility of clinical implementation;
- the prevalence of epistemic modality in *Q* and the fundamental non-assertibility of the *if*-conditional are an invaluable resource in making suppositions and interpreting;
- the polyphonic potential of concessive conditionals (with “even if”), and truncated or full forms which encapsulate other points of view, enable the writer to confront different voices;
- the optionality associated with *if*-clauses facilitates the management of the research readership’s “face”.

The importance of the socio-political agenda in the communicative aims of the editorials is apparent in several formal features of *if*-conditionals:

- canonical type 1, which occurs frequently in the editorials, is used exclusively to make categorical predictions about social, economic and political problems;

- the authoritative stance of constructional variants such as *if P, then Q* or *Q only if P* is often wielded to defend the interests of the profession;
- the prevalence of present tense sequences, compared to the past tenses which predominate in the RAs, clearly indicates a genre oriented towards present and future action and towards what needs to be done;
- the recourse to persuasive, less academically-grounded forms of argumentation than those found in the RA makes these specialized editorials much more accessible to the layman.

Lastly, when addressing medical practitioners, editorialists have no compunction about making authoritative statements to their professional peers:

- variants on the *if*-conditional construction, such as *if P, then Q*, *Q only if P* enable them to exercise a high degree of authorial control;
- the frequent use of deontic modality and recommendations, by showing that medical practice is norm-governed action, reinforces the practitioners' sense of professional identity.

The interactional role of interrogative *if*-conditionals can also be interpreted as a discursive sign of the social role of editorials within the profession, as by using questions to engage in a dialogue with readers, editorialists involve their readers in unresolved or controversial issues that the medical community as a whole needs to address.

In order to accomplish these multiple functions and to formulate their arguments in ways that each of these three readerships will find convincing and appropriate, medical editorialists need to customise their argumentative strategies – to be in turn cooperative, critical, speculative, prescriptive or admonitory. The versatility of the *if*-conditional construction means that it can successfully lend itself to these different agendas, thanks to the subtle nuances that choices in various formal features provide. As van Dijk (1998: 45) succinctly remarks, “Many of the discursive strategies of ideological expression are formal”.

[Paper received 14 March 2013]
 [Revised paper received 7 September 2013]
 [Revised paper accepted 27 October 2013]

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¹ Following the conventions adopted in much of the literature on *if*-conditionals, we will refer to the subordinate *if*-clause as the P clause and the main clause as the Q clause.

² The sources are: *Journal of Clinical Oncology* (JCO, 2003), *International Journal of Radiation Oncology* (IJRO, 2003), and *The Lancet Oncology* (LO, 2003-2004). The 2012 Impact Factors of these journals are: JCO = 18.038, IJRO = 4.524, *The Lancet Oncology* = 25.12.

³ We have restricted our analysis here to modal verb forms in the main (Q) clause. Various types of modalising lexis are also however frequently exploited in the *if*-conditionals in our MED corpus ("it is possible that..."; "perhaps..."; "it is unlikely that..."; "we need to...").

⁴The modal forms in the Q clause encompass the following: “would”, “would have”, “will”, “may”, “may have”, “might”, “might have”, “could”, “can”, “must”, “should”.

⁵There are a number of other formal variants to the If P, Q pattern which will not be dealt with here: notably those related to clause ordering, the use of commas in writing and intonation in speech (see Dancygier, 1998).

