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Claiming Authority: Modals of Obligation and Necessity in Academic Written English. The Case of SHOULD

Il presente studio si focalizza sull'uso dei verbi modali che indicano obbligo e necessità nel discorso accademico scritto e sul ruolo che essi hanno nella relazione autore-lettore. Inspirandosi all'articolo di C.M. Keck e D. Biber "Modal use in spoken and written university registers: A corpus-based study" (in *English Modality in Perspective*, eds. R. Facchinetti and F. Palmer, Peter Lang, 2004), l'analisi si concentra sulla frequenza, significato e funzione comunicativa dei (semi)modali *must, have to, should* e *ought to* nel genere accademico del *research article*. Questa ricerca si basa su un corpus di 200 *research papers* pubblicati in cinque rinomate riviste di linguistica negli anni 2001-2006, scritti in inglese da autori affiliati ad istituzioni accademiche inglesi. Recenti ricerche sulla comunicazione accademica hanno dimostrato che tale comunicazione è piena di significati interpersonali che conferiscono vari livelli di coinvolgimento rispetto alle proposizioni espresse, realizzando diversi gradi di somiglianza e riflettendo differenti schemi relazionali con i lettori. Il presente studio è particolarmente attento alle espressioni che realizzano un alto grado di modalità nel discorso accademico scritto e alla loro specifica funzione discorsiva – la costruzione e la rivendicazione dell'autorità.

1. Introduction

Far from being a dry, impersonal exchange of information, where scientific facts speak for themselves while the role of the author is that of a watchful observer, academic communication is now regarded as a complex goal-oriented activity that goes beyond the presentation of research results in order to convince the reader that the author has the necessary expertise in the field, that the research is methodologically flawless, that the interpretation of data is sound, that the results add to the existing knowledge of the field and that the conclusions are indeed justified. This means that academic communication is loaded with interpersonal meanings, with the presence and identity of the author

firmly inscribed in the text. The author's identity is, on the one hand, that of a member of the academic discourse community who shows respect for fellow scholars and the conventions accepted by the community (see, e.g., Myers 1989; Swales 1990; Hyland 1994) and on the other, that of an individual researcher making a bid for recognition and acceptance of his/her claims (Koutsantoni 2004; Martín-Martín / Burgess 2004). Hence academic communication is marked by a reliance on politeness and authority claiming devices and strategies. The interplay between these two antagonistic forces is the focus of the present chapter, which, inspired by Keck and Biber's 2004 study, is concerned with the modal auxiliary verb SHOULD as a device for shaping the relationship between the writer and the reader. The first section offers a brief survey of the modality types which will be referred to in the interpretation of findings; the second section discusses the meaning of the modal auxiliary SHOULD, followed by an analysis of its use and function in academic articles written by linguists.

1.1. *Corpus and procedure*

In this paper SHOULD is investigated as a device for establishing the writer's authority and managing the interaction with the reader of an academic text. The analysis is based on a corpus of 200 electronically available research articles published in the years 2001-2006 in five internationally recognised linguistics-related journals: *Journal of Pragmatics*, *Language and Communication*, *Language Sciences*, *Lingua*, and *Linguistics and Philosophy*. Each journal contributed 40 complete articles, including footnotes, abstracts and references; the total number of words in the corpus was 2.4 million. The affiliation of the first two authors has been taken into consideration to identify a native-like command of English, which is also guaranteed by the strict reviewing systems of the journals.

The corpus was scanned with *Oxford WordSmith Tools 5.0* for Windows (Scott 2008) for occurrences of SHOULD, producing a list of 1,636 entries, each of which was saved as a 160-character string available for immediate survey. At this point occurrences of the search word in examples were eliminated as well as instances of mention (as contrasted with use), which produced a list of 1,438 entries. Next, all

instances of direct quotations were removed from each file, leaving a list of 1,359 records. At this stage each entry was manually examined to establish the type of modal meaning imparted by the modal auxiliary.

Instances of SHOULD were classified according to their meaning as root, epistemic, quasi-subjunctive or hypothetical. Next, each batch was examined separately to identify attributive uses, that is, those associated with a specific authority or a point of view, which did not necessarily overlap with the author's perspective. Root SHOULD was classified as deontic or dynamic; epistemic SHOULD was identified as epistemic proper, inferred evidential or quotative evidential; quasi-subjunctive uses were examined for the possibility of root interpretation; and hypothetical SHOULD was studied for occurrences in subordinate clauses of condition and for uses with verbs of thinking and speaking.

2. *Modal meanings*

Modality has been defined as "information in a sentence which is distinct from the propositional content" (Ransom 1977: 357). Modal meanings are traditionally divided into root and epistemic, the former referring to "real-world obligation, permission, or ability", and the latter to "necessity, probability, or possibility in reasoning" (Sweetser 1982: 484). Although the distinction between epistemic and root senses in heavily context dependent (see, e.g., Klinge 1993; Butler 2003), it is generally upheld as one separating the speaker's assessment of the relationship between the situation expressed by the proposition and the real world from the relationship between the subject of the sentence and the activity specified by the verb. In Butler's (2003: 969) words, "epistemic modality makes judgements on actual or possible situations in the world; root modality mediates in various ways the relation between a subject and a predicate".

Root modality embraces several subdomains, two of which are important for the present discussion: deontic and dynamic. Deontic modality relates to the concept of 'duty', often construed in moral or legal terms, and is concerned with "a speaker's attitude to the degree of obligation attaching to the performance of certain actions" (Simpson

1993: 47). Dynamic modality points to circumstances which make the performance of a certain action possible or necessary and is concerned with "what can or must happen, given circumstances of a certain kind" (Kratzer 1981: 52).

Epistemic modality relays the degree of confidence the speaker has that the claim s/he is making in the proposition indeed holds. Markers of this type of modality impart commitment to the expressed claim, assessment of its probability and evaluation of its status in the body of general knowledge of the world. A subsystem of epistemic modality, often treated as a separate modal domain, is evidentiality, which is concerned with the type of evidence the speaker has for the claim. Evidentials are classified according to the type of evidence, which can be direct or indirect (Dendale / Tasmowski 2001: 343). Indirect evidentiality includes *reported evidentials* ('quotatives' in Palmer 1986 and Plungian 2001) if the speaker relies on other people's reports about observed facts, and *inferentials* if the speaker "has (directly) observed another situation which s/he interprets as pointing towards P [...] or s/he simply knows something which suggests that P is probable" (Plungian 2001: 352).

3. *Meanings of SHOULD*

Coates (1983) observes that SHOULD is now used in four ways: as a root modal expressing obligation, with the speaker admitting the possibility that the action expressed in the predication may not be performed (cf. also Palmer 1986); as an epistemic modal, which like OUGHT TO is closely associated with epistemic MUST and, apart from a certain degree of tentativeness, imparts "some notion of conditionality" (Palmer 1986: 63); as a quasi-subjunctive in subordinate *that*-clauses, and as a variant of hypothetical WOULD with the first person singular and plural.

With regard to the root meaning of SHOULD, Coates (1983) analyses it along two scales: subjective-objective and strong-weak, with the core meaning coinciding with the subjective/strong pole. Subjective uses emphasise the involvement and authority of the speaker, who suggests action, and who in more objective examples is not the source

of obligation. Strong SHOULD imparts moral obligation or duty defined in moral or legal terms, which contrasts with weaker uses, where it is used to offer suggestions or comments on the appropriate course of action. The way these scales intersect in my corpus is shown in examples (1-3). All these examples fall within the category of deontic modality, which, as argued by van der Auwera and Plungian (1998: 81), "identifies the enabling or compelling circumstances external to the participant as some person(s), often the speaker, and/or as some social or ethical norm(s) permitting or obliging the participant to engage in the state of affairs".

(1)   Then I will argue that this notion *should* cover a class of cases that Heim would probably not have included. (LP2003-2) [subjective/weak]

(2)   A theory of language *should*: (1) Be a theory of language and not of something else, such as the mind or human behaviour. (LS2003-5) [objective/strong]

(3)   Strictly speaking one *should* not think of speaker intentions as determining directly the set of target mental representations. (LP2005-6) [objective/weak]

Notably, the subjective/strong use of SHOULD was not attested in my corpus[1]. In their semantic map of modal meanings, van der Auwera and Plungian (1998: 80-81) identify a semantic domain of "participant-external modality" referring to circumstances in the world which make a state of affairs expressed in the predication either possible or necessary. This subdomain of root modality corresponds to Palmer's (1979) category of dynamic modality. When used in this way, SHOULD moves further away from its subjective core, as the source of obligation is placed explicitly in the external world and is not identified with the speaker:

(4)   To clarify what Descartes is questioning, we *should* distinguish between the problem that he has when philosophizing and any problem he might have in his everyday life. (LS2004-4)

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[1] The same seems to be true of MUST, whose core meaning – subjective, with a strong sense of obligation – is absent from the corpus (Warchał 2007).

As regards features which tend to co-occur with the prototypical root meaning of the verb, Coates (1983), while noting that they are more difficult to identify for SHOULD than for MUST, tentatively suggests the following distinction:

(a) Subject is animate.
(b) Main verb is an active agentive verb or a verb in the passive.
(c) Main predication refers to an event in the future.
(d) When used with past time reference (*should have*), it is contra-factive.

Used epistemically, SHOULD expresses an assessment of probability based on facts known to the speaker. The difference between epistemic MUST and SHOULD can be summed up in the following way: if MUST means that all the evidence entails that something is the case, then SHOULD means that there is some evidence which entails it (Groefsema 1995). Thus, compared with MUST, epistemic SHOULD expresses a less confident assumption that something is the case, the assumption based on the personal judgement of the speaker (epistemic proper, example 5) or on evidence available to the speaker and explicitly quoted for the receiver to evaluate (indirect evidential, example 6).

> (5)   But the maxim of relation is simply taken for granted – which *should* please relevance theorists such as Sperber and Wilson (1995). (LS2004-5)
>
> (6)   If there is a matching effect in these cases, it *should* be possible to add events to our semantics and incorporate a matching function like that of Rothstein (1995). (LP2005-8)

According to Coates (1983: 66), core examples of epistemic SHOULD are frequently associated with the following features:

(a) Subject is inanimate.
(b) Main verb is non-agentive.
(c) Main predication refers to a state in the future.

As regards its quasi-subjunctive, or putative use (Quirk *et al.* 1985), SHOULD occurs in *that*-clauses introduced by projecting clauses containing adjectives, verbs or nouns of emotional response, necessity, intention or plan. In such contexts SHOULD is semantically empty (example 7), but, as noted by Coates (1983: 68), it is often compatible

with the root meaning of weak obligation, which results in a merger of modal senses activated at the same time (example 8).

(7) Main predication being the point at which a proposition comes into being, it seems natural that it *should* be signalled in terms of a relationship to one of the essential elements of a proposition, the temporal anchor. (L2006-3)

(8) The whole remark originally belonged to a critical discussion of the notion of a logically private language (MS 180a: 35v - 36r); and the retention of the expression 'privately' (i.e. the allusion to that sense of the adverb *privately*) suggests that the whole remark *should* still be interpreted in precisely that light. (LC2002-2)

Carrying hypothetical meaning, SHOULD is a variant of hypothetical WOULD with first person subjects. Coates (1983: 221) reports that it is relatively rarely used to express unreal conditions (example 9), its most important function being to convey politeness and tentativeness (example 10).

(9) If we allowed 'limited recycling' with a subordinating analysis for *and* (type (S/S)/S, that is), we *should* lose exactly this distinguishing feature of coordination in English: any such liberalization would then leave us without an explanation for the ungrammaticality of (10) and its analogues with any other bona fide subordinating connective. (LP2005-5)

(10) Though I have no data to hand which might support this supposition, I *should* imagine that, in terms of both type and token frequency, class 3 is relatively infrequent vis-à-vis class 1, with which it shares a number of phonological commonalities. (LS2003-7)

Furthermore, SHOULD is also used for open conditions in conditional clauses to impart tentativeness (example 11) or, when combined with inversion, for stylistic effect.

(11) *Should* the context be enriched by the assertion of material that is made relevant by its substitution for the metavariable, this substitution will take place. (L2006-3)

This short outline of the basic uses of the modal auxiliary SHOULD in modern English indicates that it performs a variety of functions in discourse, from directives and suggestions, through assessment of probability to politeness strategies, where the validity of the predication is limited or qualified. The next section deals with the use of this auxiliary in academic written discourse, and more specifically with its meaning and function in one academic genre, the research article.

4. SHOULD in research articles

4.1. Root SHOULD

Root meaning was by far the most frequent sense of SHOULD in the examined corpus, identified in almost 60% of cases (Fig. 1). This finding corresponds to Coates' (1983: 58) results obtained from the Lancaster Corpus of written English (of which scholarly English is a component), where SHOULD was found to occur in its root meaning in more than half of cases. The dominance of the root meaning of this modal auxiliary was also noted by Rezzano, who, having studied 90 discussion/ conclusion sections of research articles, found it "practically exclusively expressing deontic modality [...] but not logical inference" (2004: 113).
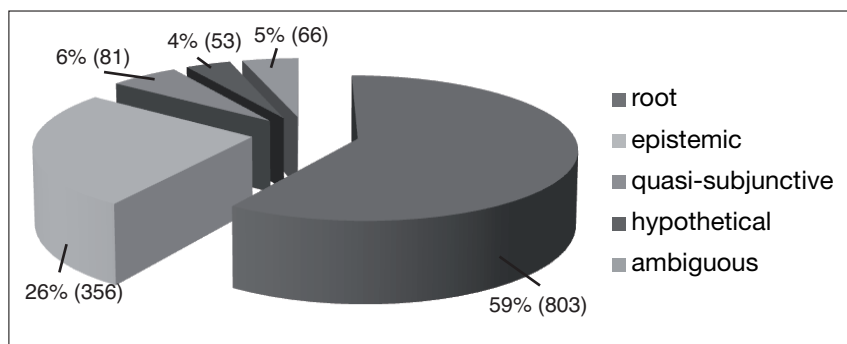

Figure 1. SHOULD in academic research articles.

The distribution of root SHOULD in main and subordinate clauses was approximately even, with 53% of instances recorded in main clauses

and 47% in subordinate clauses. Only a small fraction of main clause occurrences (20 items, less than 5% of main clause records and 2% of all root instances) were attributed to another authority or point of view (example 12), while in subordinate clauses the proportion was much higher and reached 27% of subordinate clause records (13% of all root occurrences; Fig. 2). It is worth noting that the findings obtained for MUST in the same corpus were similar: 6% against 21% of attributions in main and subordinate clauses respectively (Warchał 2007).

> (12) Clark's answer to this challenge has two strands (Clark, 2004). On the one hand, we *should* not work with an overly restricted or puritanical notion of scientific explanation; on the other hand, we *should* not rule out in advance the possibility that in fact there may be higher-level accounts which do find commonalities or patterns across the "unscientific motley of capacities" (Adams and Aizawa, 2001, p. 62) exhibited by extended hybrid minds. (LS2004-6)
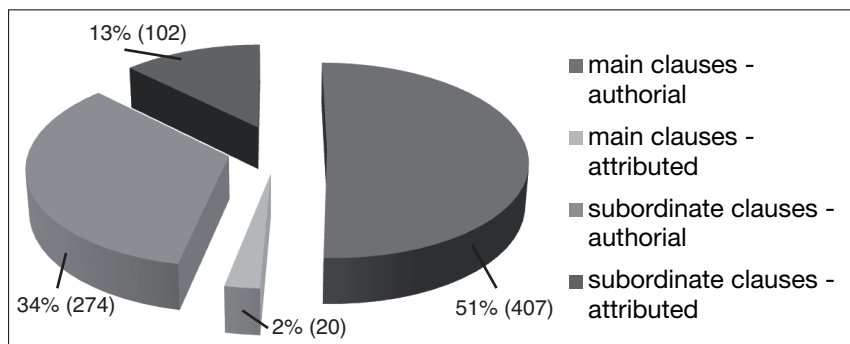

13% (102)

■ main clauses - authorial

■ main clauses - attributed

■ subordinate clauses - authorial

■ subordinate clauses - attributed

34% (274)

2% (20)

51% (407)

Figure 2. Root SHOULD.

With regard to the deontic/dynamic distinction, SHOULD was found to occur much more often in the former meaning: 81% of the records were deontic, distributed evenly across main and subordinate clauses (Fig. 3). Among the deontic uses, 16% (105 instances, 13% of all root occurrences; Fig. 3) were attributed, with a vast majority of these (85%) in subordinate clauses. As regards dynamic uses of SHOULD, the relative number of attributions was somewhat smaller (17 instances, 10% of the dynamic records and 2% of all root

occurrences; example 13), three quarters of which in subordinate clauses. The difference in the number of attributions may be related to the fact that in dynamic modality the speaker's involvement is already reduced, as the obligation or necessity derives from circumstances in the real world rather than from the authority of the speaker. By contrast, in the deontic domain, attributions are the essential tool for controlling the level of subjectivity, which is naturally higher than in the case of dynamic occurrences.

(13) According to Keller's maxims, any use of obscure and/or ambiguous words – such as the English example above, which has two possible meanings, both of which are potentially relevant to common constructions – *should* be avoided, not promoted, since it impairs language comprehension and clarity. (JP2003-2)
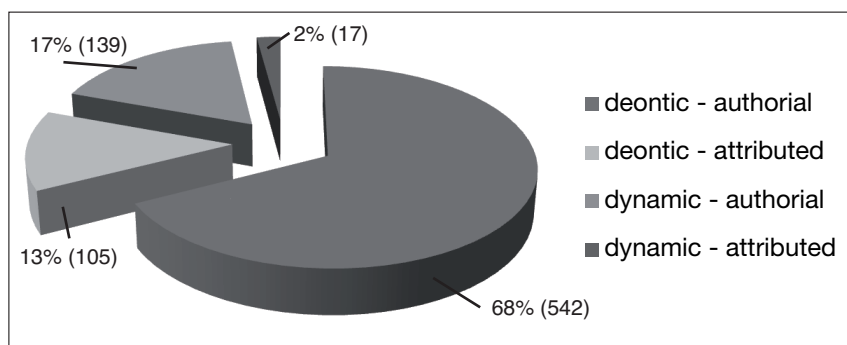

Figure 3. Deontic and dynamic SHOULD.

These findings show that in the examined corpus of texts root SHOULD functions in at least four different ways: as a modal of obligation which emphasises the writer's authority (example 1); as a vector of impersonal directives which, however strong, do not engage the author as the source of obligation (example 2); as a tool for suggesting action (example 3), often prompted by external factors (examples 4, 13); and as a modal of obligation with its source placed explicitly with another authority (examples 12, 13).

4.2. Epistemic SHOULD

Although it is the second most frequent meaning in the corpus, epistemic SHOULD was recorded much more rarely than root, i.e. in 26% of cases (Fig. 1). Among epistemic uses, 56.5% were recorded in main clauses, with only a small fraction of attributions (2.5% of all epistemic occurrences; Fig. 4, example 14). As for epistemic SHOULD in subordinate clauses, 26% of these were attributed (11.5% of all epistemic records; Fig. 4), which gives a picture strikingly similar to that for root SHOULD.
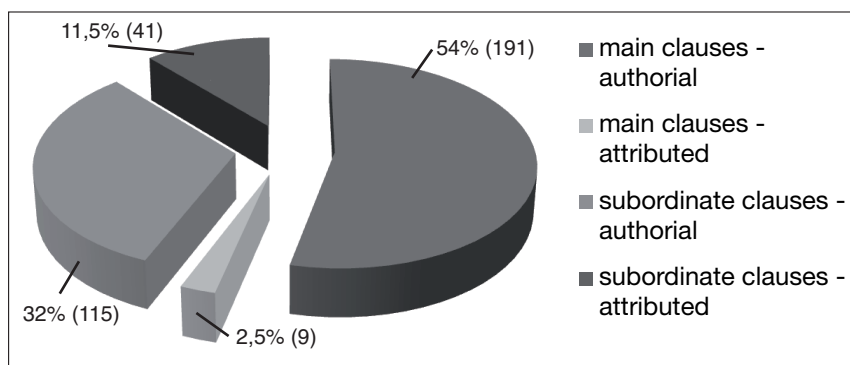

Figure 4. Epistemic SHOULD.

(14) According to Fillmore's claim, participants *should* have uniformly placed to between the verb and the following NP. Instead, however, many of the responses placed to at the end of the sentence. (L2005-10)

Almost half of the recorded examples of epistemic SHOULD were identified as evidentials – either inferred (35% of epistemic records, example 15) or quotative (attributed, in 14% of epistemic cases, Fig. 5). The most frequently recorded use was epistemic proper, noted in 51% of records (example 16). As regards the distribution in main and subordinate clauses, evidential uses were slightly more frequent in main clauses (51% of main clause records, as contrasted with 46% of subordinate clauses), with quotatives (attributive uses) appearing much more often in subordinate clauses (26% of subordinate clause occurrences, as contrasted with a mere 4.5% of main clauses).

(15) But professional linguists and philosophers of language frequently disagree about the semantic structure of various expressions. Furthermore, they are surely amply primed to the relevant issue, so they *should* be well-suited to make occurrent any accessible beliefs that they have about language. (LP2004-2)

(16) Such an approach *should* significantly enhance our ability to give a cogent account of the polysystemic and multistructural linguistic constitution of talk-in-interaction. (JP2004-4)

14% (50)

51% (183)

35% (123)

- epistemic proper
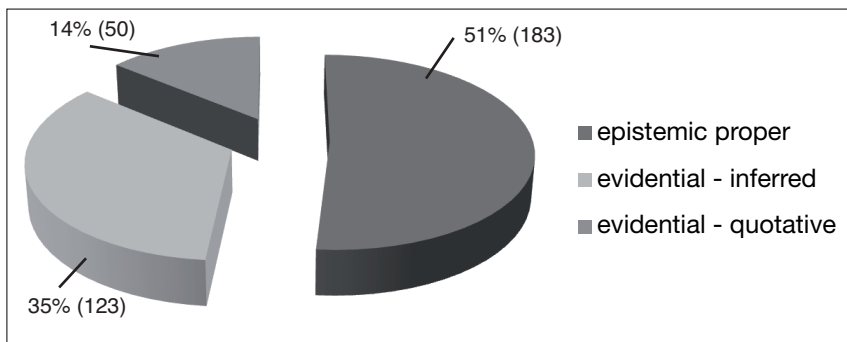- evidential - inferred
- evidential - quotative

Figure 5. Epistemic proper and evidential SHOULD.

In the corpus under analysis, epistemic SHOULD is used to form assumptions – plausible but not fully confident – which are based either on the personal judgement of the author (examples 5, 16) or on indirect evidence. It should be noted that modality based on indirect evidence, here recorded in almost half of the uses of epistemic SHOULD, reduces the writer's involvement either by attributing the assessment of probability that something is the case to an external authority (quotative evidentials, example 14) or by providing reasons for the assessment, the soundness of which is thus left for the reader to evaluate (inferred evidentials, examples 6, 15).

4.3. *Quasi-subjunctive SHOULD*

A small proportion of records (6%) were identified as quasi-subjunctive (example 17) – all of them, naturally, in subordinate clauses. Almost one quarter of these were attributed (example 18). In

60% of quasi-subjunctive records, root meaning was compatible with quasi-subjunctive and one can speak of a merger of modal senses (example 19). In these cases, SHOULD acted as a device for making suggestions, a function emphasised in examples (8) and (19) by the presence of the verb *suggest* in the projecting clause, with the writer not necessarily acting as the source of authority (example 8).

(17) I also find it bizarre that Palma *should* regard the difference between the words mind and brain as 'a spelling choice'. (LS2004-8)

(18) Barry and Marco then proceed to make fun of Callum's complaint, ridiculing the notion that he *should* actually talk, i.e. verbally communicate face-to-face, with clients. (JP2006-6)

(19) I suggest sentence type *should* also be dealt with as a distinct category although the inclusion of certain sentence types, such as yes/no questions would not contradict my definition. (LS2005-2)

4.4. Hypothetical SHOULD

With regard to the hypothetical meaning of SHOULD, in the examined corpus this was noted in 53 cases (4% of all records), 43% of which were found in subordinate clauses of condition, a vast majority (20 out of 23 entries) co-occurring with inversion (example 20). Among the remaining 30 cases, 28 (53% of hypothetical SHOULD records) were associated with verbs of mental processes, speaking or mental states, such as *think, imagine, come to the realisation, say* and *postulate* (examples 21-22).

(20) *Should* an onlooker misconstrue the women's ostensible intentions as they sing, the structure of ritual singing and dancing does not offer this onlooker a clear opportunity to express their view, nor the singers a clear chance to rebut, so the misalignment between performers' intentions and onlookers' interpretation goes unaddressed on the spot. (LC2005-4)

(21) The integrationist, I *should* have thought, would reply that texts do not 'have implications' any more than 'words have meanings'. Implications, like meanings, are constructed in the communicative context of the reader's interpretation.) (LS2003-1)

(22) Nonetheless, if the analysis I am proposing is correct, we *should* expect to find evidence for the presence of agreement in the lower clause, as well as for agreement between the matrix and embedded predicates. (L2006-1)

In general, it seems that in this corpus hypothetical SHOULD functions as a politeness strategy and an attention-capturing device. In the former case, it conveys tentativeness (example 11) and is often associated with verbs of speaking or mental processes with first person subjects (examples 10, 22); in the latter case, it is associated with inversion (examples 11, 20).

5. *Concluding remarks*

The findings of the present research can be summarised as follows:
- 60% of the recorded uses of SHOULD are root uses. This proportion can be regarded as high if one takes into account the fact that SHOULD is a strong modal of obligation, which emphasises external authority, while admitting the possibility that the recommended action will not be performed. At the same time, when compared with Rezzano's results (2004), the number is lower than might have been expected.
- Among the root uses, a vast majority (over 80%) represent deontic meaning, which, compared to dynamic uses, highlights the writer's involvement and responsibility for the command or recommendation. This may suggest that, compared to MUST, where the deontic uses account for only 57% of root records (Warchał 2007), SHOULD in the examined corpus of texts remains closer to its core meaning. Still, this suggestion must be treated with caution until additional syntactic features associated with SHOULD are analysed.
- The epistemic meaning was identified in 26% of the records, as contrasted with 16% identified for MUST in the same corpus and a negligible fraction in Rezzano's (2004) corpus of discussion/ conclusion sections.
- Approximately half of the epistemic records are evidential uses, which relieve the speaker from the responsibility for the claim, more

than half of this batch (30% of all epistemic records) being quotatives, which absolve the speaker from the responsibility altogether. This may suggest that, if epistemically used, SHOULD tends to be qualified by references to other sources of authority.

- As regards quasi-subjunctive uses, as much as 60% of the records are compatible with the root meaning, which still adds to the results obtained for this most frequently attested modality type.
- In more than half of the records identified as hypothetical, SHOULD was associated with verbs of speaking, mental processes and states, which may be interpreted as a politeness strategy.
- Another 43% of the hypothetical records were found in subordinate clauses of condition, almost all combined with inversion, which suggests its use as an attention-capturing device.

These findings show that the modal auxiliary SHOULD performs a variety of widely different functions in academic discourse, from exhortation emphasising the speaker's authority, impersonal directives relieving the speaker from the responsibility for issuing a command, and suggestions put forward for consideration, as in the case of root and quasi-subjunctive SHOULD (about 63% of the records), through assessments of probability, as with epistemic SHOULD (26% of the records), to politeness strategies and attention-capturing devices, as in the case of hypothetical SHOULD (approximately 4% of the records). This use of SHOULD in the examined type of academic texts seems to reflect the need to conform to the accepted rules of writing for scholarly audiences, which tell the writer to avoid direct impositions, to mark hypotheses and new claims off from established knowledge by explicitly qualifying the degree of authorial commitment, and to show respect for the readership, both as fellow researchers and as readers. It appears that the use of SHOULD in the examined linguistics-related academic articles illustrates the essential paradox experienced by a researcher addressing their colleagues: the need to claim authority on the one hand and to win acceptance of the reader on the other.

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