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Regulating the language of research writing: Disciplinary and institutional mechanisms

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Abstract

This paper concerns the regulation of second language research writing, particularly from the point of view of how English language writing is managed and intervened in. We approach the topic through a case study conducted at a computer science department in a large Nordic university. Drawing on interviews with researchers and administrative staff working in the setting, as well as document data, we explore (1) what kinds of institutional, top-down mechanisms can be identified which regulate English language research writing and (2) how regulation is enacted in the form of interventions into research texts as part of the writing practices of research groups. The analysis draws on the Academic Literacies paradigm and the sociolinguistics of writing. We analyse both the way in which research writing is affected by disciplinary conventions and expectations and the way in which institutional constraints and affordances impact writing. The findings show a lack of top-down mechanisms regulating writing; disciplinary pressures seemed to matter more to writers than institutional ones.

Introduction

Universities as institutions have been described as affected by both organisational nationalism and disciplinary internationalisation (e.g. Saarinen 2014). ‘Organisational nationalism’ entails an expectation that universities use local languages in order to reach members of the local community. In contrast, ‘disciplinary internationalisation’ often involves the use of other than local languages, typically languages that function as academic lingua francas across national borders. While the number and kinds of lingua francas vary in time and place, academia and higher education can be characterised as essentially multilingual.

Academic multilingualism is increasingly managed through university language policies and the provision of different forms of language support for staff and students. The present analysis explores such management from the perspective of both individual language users and academic institutions. It focuses in particular on English, a widely used and formally acknowledged academic lingua franca. English is not only a central language for research and higher education today, but also a debated one, as documented in several studies (e.g. Doiz, Lasagabaster and Sierra 2013; Hultgren, Gregersen and Thøgersen 2014).

A central concept in this paper is *language regulation*, referring to the variety of practices through which language users monitor, intervene in or manage their own and others’ language use (Hynninen and Solin 2017). We intend the concept to be understood in a broad sense, as referring not only to explicit rules or codes, or ‘regulations’, but potentially to any kind of practice, institutional or everyday, stable or transient, with a wide or narrow scope, which generates or constitutes interventions into language. Language regulation, for us, encompasses top-down mechanisms such as institutional language policies, language competence requirements and the provision of language support, but also situated practices of intervening in language, such as when a group of writers discusses and comments on an early draft of a research paper.

There are a multitude of studies on how research writers across the globe cope with demands of writing in English and other challenges on the way to getting published in academic journals (Canagarajah 2002; Carli and Ammon 2007; Kuteeva and Mauranen 2014; Lillis and Curry 2010), and we argue that the concept of language regulation is a useful addition to the agenda.

Language regulation can target both ‘language choice’ – which languages can and should be used in which contexts and genres – and ‘language quality’ – what kind of English language users deem appropriate, acceptable and functional in specific contexts. In this paper, we focus on the regulation of language quality, which we analyse from two perspectives: we explore institutional mechanisms which potentially generate regulation of research writing (e.g. faculty-level policies and guidelines) and individual researchers’ practices of regulating their research texts or seeking interventions from others. The analysis also highlights the sometimes complex ways in which findings about institutional regulation relate to writers’ accounts of their situated practices.

The analysis describes the regulation of research writing in a specific disciplinary setting, computer science, situated in the Faculty of Science of a large multidisciplinary Nordic university. The focus is on research writing as produced within research groups whose

members have various language backgrounds but whose professional writing is predominantly in English. The research questions are:

- (1) What kinds of institutional, top-down mechanisms can be identified which regulate English language research writing in the Department of Computer Science?
- (2) How is regulation enacted by intervening into language as part of research writing practices within research groups?
 - (a) Who participates in regulating the quality of English language research writing and in what ways?
 - (b) What kinds of interventions into the language of research texts are construed as valuable by the writers?

The first research question focuses attention on how decisions are made on a managerial or administrative level regarding how and when language use is to be intervened in and whose language use and which genres should be targeted. In order to analyse this, we need to look at institutional decisions or practices which *generate (the potential for) regulation*. For example, the decision to allocate funding for language revision services is likely to generate interventions into English language writing but does not in itself constitute an intervention into language. The second research question concerns concrete practices of intervening in language, enacted as part of collaborative practices of writing in research groups. While the main agents of institutional regulation are administrators and university management, the main participants in practices of regulation in the sense of intervention are groups of writers, disciplinary peers and professional language editors.

The data consist of interviews with computer scientists, university administrators and an in-house language editor, as well as documents (e.g. policy documents and guidelines). We approach the writing of the researchers as being contextualised both within particular disciplinary frames (cf. Gnutzmann and Rabe 2014) and in terms of organisational constraints. For example, all the participating computer scientists orient to specific subdisciplines of the field of computer science, but their work is also organised through being located in a particular department and university, which creates affordances but also constraints in terms of English language writing.

Context and approach

We analyse language regulation as a multisited, multidirectional practice by considering a diversity of different instruments and agents of regulation, rather than simply looking at explicit mechanisms of regulation such as institutional policy documents. While such mechanisms may have the widest scope and greatest visibility, an exploration of local perspectives is necessary in order to capture the complexity of practices that produce language regulation (cf. Blommaert 2013b; McCarty 2011; Nekvapil and Sherman 2015). As noted above, these practices might range from relatively situated and temporary ones to more permanent and explicitly managed ones.

The analysis draws on the Academic Literacies paradigm (Donahue and Lillis 2014; Lillis and Scott 2007) and the sociolinguistics of writing (Blommaert 2013a; Lillis 2013;

Lillis and McKinney 2013). The former is an approach which conceptualises writing as a social practice; it explores writing as an everyday activity and emphasises the situatedness of individual writers within specific contexts. Recent texts on the sociolinguistics of writing also advocate analysis of writing processes rather than just texts, with a focus on the cyclical nature of writing, often involving a variety of different participants at different stages and in different roles, and writing as influenced by varying material conditions, time and space. Both approaches aim to understand writing from the perspective of writers, drawing on different types of ethnographic data in addition to texts, such as observation of writing practices and interviews.

There has recently been a surge of interest in how second language (L2) users navigate the process of producing articles for high-stakes English-medium publications, who participates in such processes (besides the authors) and what kinds of forms their interventions take, as well as what regulatory effect these interventions may have. Burrough-Boenisch's article from 2003 on the 'shapers' of English language research writing is one of the early attempts to model such writing as a process involving many stages and participants. In the model, the production of a research article is conceptualised as an iterative cycle where changes to texts are instigated or produced by authors, their colleagues, language editors, journal editors, reviewers and copy-editors.

Dozens of studies have been published since then which focus specifically on interventions in the language of research texts, many taking up a concept introduced by Lillis and Curry (2006; see also 2010), 'literacy brokering' (e.g. Li and Flowerdew 2007; Luo and Hyland 2016; Mur-Dueñas 2012). These studies not only look at what kinds of changes are made to texts during revision, but also focus on the practices around managing these interventions, for example writers' access to brokers, what kind of brokers are considered legitimate or useful and what kind of a relationship brokers and writers forge during the process. With our focus on language regulation, we continue along this line of research.

Lillis and Curry's research on practices of literacy brokering demonstrates how extensive such brokering is. The 130 article writing and revising processes (or 'text histories') described in Lillis and Curry (2006) involved 248 brokers explicitly mentioned by the writer participants. This textual work, which was mostly unrecorded and invisible to readers, was sought from various types of brokers, including academic professionals, language professionals and non-professionals such as family members and friends.

A study on the writing of Chinese doctoral students in the sciences by Li and Flowerdew (2007) finds writers turning to a variety of different locally available brokers in the absence of professional language revision services. In their data, the most important agents of language regulation were supervisors, peers and a local English teacher. The role of supervisors emerged as particularly significant: supervisors were available (often in the same lab) and perceived it as their responsibility to edit their students' papers. In interviews, supervisors reported sometimes rewriting complete sections or paragraphs and their students generally accepting the rewrite completely (Li and Flowerdew 2007: 107). Their data also suggest that even in cases where the novice writers were aware of the availability of external language revision services (e.g. services available online), they were doubtful about using them, due to cost but also lack of trust. As one interviewee explained: 'There may be a

concern that if I send you my paper, you take it to publish for yourself!’ (Li and Flowerdew 2007: 112).

An ethnographic study by Mur-Dueñas (2012) on Spanish scholars also suggests that her informants had little institutional support in the form of editorial services, including financial support, for professional language revision. They therefore sought brokering mainly after peer review and only in cases where it was likely that their paper would be eventually published. That is, whether language help was sought depended on whether it was seen as being worth it in terms of eventual career related gains. It was not a recurring stage in the process of writing for publication, but one which was negotiated case by case.

On the whole, recent studies on writing for publication in English show that intervention in language is typically not a top-down process where the sole agent is a professional language editor; English use is regulated also by colleagues, teachers, supervisors and even friends. Brokering also involves negotiation rather than simply dictation from above. In our paper, we wish to further highlight the dynamics of situated decision making and negotiation and the affordances of the institutions the writers work in.

Data and methods

The approach adopted in this study differs somewhat from the studies reviewed above. While our analysis also explores the writing practices of researchers, we contextualise these practices not only within the disciplinary context of computer science but also within the institutional context of the Faculty of Science, paying attention to forms of institutional regulation which potentially impact writing.

We draw on data collected as part of a larger research project on language regulation in Nordic universities (see the website of the *Language Regulation in Academia project*, <http://www.helsinki.fi/project/lara>). We present an analysis of data from one department within the Faculty of Science, the Department of Computer Science. This department is a large and research-intensive one in comparison to other departments at the university. In 2016, it had about 150 members of staff out of whom about 50 were in a post involving research and 35 were doctoral students. According to the department’s annual report, altogether 215 publications were produced by staff members, out of which 103 were articles in conference publications and 69 were journal articles. As these figures illustrate, in addition to journal articles, conference papers are an important research publication genre in the field (c.f. Li 2006).

The data set consists of interviews with researchers at the department ($N = 6$), administrators on faculty and department level ($N = 2$) and an in-house language editor, as well as document data (e.g. guidelines on the use of language revision services). The two administrators were selected as interviewees due to their seniority and position: both were responsible for finances and had a broad perspective on activities at the Faculty of Science. The computer scientists we interviewed were in different career stages, which also reflected their experience in writing English-language research papers: two of them were professors with dozens of international publications written in English, one a senior lecturer with a

similarly extensive English-language publication list and three were doctoral students with limited experience in publishing in English. Despite these differences in their experiences, all of the researchers regularly, and mainly, used English for their research-related writing (cf. Li 2006, who suggests that Chinese computer scientists' 'primary target for publication' are high-quality domestic journals where the language of publication is Chinese). All of the writers were multilingual L2 users of English (with five different L1s). Our focus is on L2 writers of English, because it is typically their writing, rather than that of L1 writers, which is subjected to language-regulatory measures (Lillis and Curry 2010).

The interviews with administrators and the language editor focused on forms of institutional regulation, such as the provision and funding of language revision services and guidelines for staff on language issues. The interviews with researchers focused on their writing practices and experiences of language regulation. Excerpts from interviews conducted in languages other than English have been translated by the authors. Speaker codes and transcription conventions are explained in Appendix 1.

The document data include texts discussed in the interviews, either texts pointed to by the interviewees as relevant to language regulation (e.g. conference/journal writing guidelines) or texts brought to the discussion by the interviewers (e.g. guidelines on the use of language revision services). In addition, the analysis is informed by document data which were available online, such as strategy documents published by the Faculty of Science, the Annual Report of the Department of Computer Science and instructions for doctoral students published by the Doctoral Programme of Computer Science.

In the analysis, we follow a discourse approach (Blommaert 2005; Lillis 2008) and focus on how the participants talk about language regulation as well as what kinds of language regulatory measures are described in the document data. The analysis began by identifying those parts of the document data that related to the regulation of research writing and those locations in the interviews where regulation was discussed. At this stage, all references to document data in the interviews were noted, and in the case of the researcher interviews, the selected passages were further categorised according to the type of regulation discussed (e.g. regulation by a professional language editor). The data were then subjected to a close analysis where particular attention was paid to the ways in which the different participants talked about their experiences and perceptions of regulation and what positions they adopted (e.g. that of writer or that of regulator or onlooker).

The participants' talk is contextualised situationally and institutionally, seeking connections between different types of data. How researchers talked in the interviews is analysed in relation to their institutional positions and roles in the professional community, but also in the light of what emerged in interviews with administrators and the document data. The different types of data allow exploring how the different participants' accounts relate to one another (e.g. how administrators' accounts relate to how researchers talk about language regulation) and what texts interviewees refer to as relevant.

Practices of regulating research writing in computer science

The following analysis is divided into two parts. In the first part, we explore the regulation of language quality as an institutionally managed practice. In the second part, we analyse language regulation as it is negotiated as part of the local organisation of writing in research groups.

Language quality as a target of institutional regulation

Research writing in computer science as in most other disciplines is regulated through a range of top-down mechanisms both in individual research institutions and in global terms (including national evaluation systems and journal hierarchies; see e.g. Tusting (this issue)). Such regimes also affected researchers in the university we studied. A national ranking of journals and other publication channels had a direct impact on university funding. While our writer participants did not raise the journal ranking as a concern related to language quality, the ranking list did form a central element of the regime through which eventual publications could be evaluated in the institution.

In this section, we describe the way in which English language research writing was positioned as an object of regulation in institutional guidelines and in the talk of university administrators. The interviews with administrators and the document data indicate that there were no faculty-level policies or guidelines in place which would function as language regulatory mechanisms. For instance, there were no formal requirements related to the language competence of staff, language training or the use of language revision services. The faculty's key strategic document, the *Faculty of Science Target Programme*, lacked any reference to languages or language support, despite the multilingual nature of almost all of the faculty's key activities (cf. Saarinen and Nikula 2013). We can conclude that on the level of policy and strategy, English use was not construed as a target of regulation in the Faculty of Science

Our interviews with researchers in computer science indicate that they often used some form of language revision service (typically external online services) during article writing processes. However, neither the Faculty of Science nor the Department of Computer Science monitored or regulated the use of such services. In fact, interviews with the two senior administrators suggest that they knew little about what went on in research groups in terms of how research articles were produced and who participated in the process. The head of administration at the Faculty of Science (FSAt), who oversaw faculty finances and activities, stated that he was not aware of any pressure for doctoral candidates to seek language revision of their completed thesis. This is in contrast with an explicit recommendation issued by the Doctoral Programme in Computer Science that doctoral candidates send their theses for language revision:

(1)

It is recommended that the language of your thesis is checked either before it is send [sic] for pre-examination, or at least before the final thesis is printed. You can send your thesis for language checking to [name of in-house language editor]. ("Graduation process in the [doctoral] programme", available online)

Similarly, the head of administration at the Department of Computer Science expressed a belief that staff did not use external language revision services, e.g. online services ('we have not come across that sort of thing'; CSA), while our writer participants reported using them regularly (as discussed below). Thus, there was some discrepancy in what our interviewees reported about top-down mechanisms in different sites in the faculty.

In the interviews with administrators, support for writing was construed as an issue for research groups, not administrators. The faculty level administrator explicitly positioned research groups as being responsible for the quality of their publications. In the case of doctoral theses written in English, he construed language quality as an issue to be negotiated within research groups and in the interaction between supervisors and doctoral students:

(2)

FSAt: it's a matter of honour to them [doctoral candidates] that they make sure the summarising report of their thesis is intelligible¹, they will have to defend every word [during the examination] ((...)) it's the business of the research group it's the business of the research group it's the business of the supervisor and the doctoral candidate

Here, the administrator describes language quality through the notion of 'intelligibility' and establishes it as a 'matter of honour' for the doctoral candidate. The choice of wording is interesting: a 'matter of honour' can be understood as essentially a personal matter (a matter of individual integrity), not an institutional one. Language quality is also construed as being outside the remit of administration by emphasising that it is 'the business of the research group' or the 'business of the supervisor and doctoral candidate'. This is relevant in terms of institutional language regulation, since it suggests that whether research texts were regulated and by whom was an issue which researchers were free to negotiate amongst themselves, rather than something that administrators would check on or intervene in.

As the discussion so far illustrates, the prevailing ethos of the administrators was non-intervention in the work of research groups. On the whole, researchers and research groups were able to make decisions about the use of language revision services independently. The employees of the university studied could, in principle, seek such services from two sources: external (typically online) services and the university's centralised Language Services unit. However, researchers at the Department of Computer Science were in a different position than other staff: the department had made a decision in the late 1990s to hire an in-house translator/language editor to work exclusively on texts produced by department staff.² This was an organisational affordance which meant that revision services were available close by, free of charge, managed and funded by the department. The affordance also meant that the researchers we interviewed did not report using the services of the university's Language Services unit.

¹ The interviewee is here referring to the so-called article-based dissertation, which consists of a summarising report and published articles. This was the typical form of doctoral dissertations in the computer science department.

² We refer to this person with the term 'in-house language editor' in order to distinguish her services from the university-external services, which the researchers also used.

The in-house language editor was a significant resource for researchers in computer science: there were no financial constraints on whether to seek language revision services or not. This resource generated the potential for research writing to be regulated (in the sense of being intervened in) much more than at other departments in the same faculty, none of whom had chosen to fund a similar position. The department's head of administration, who oversaw the editor's work, suggested that there were very few restrictions on what kind of work she did: 'staff can use her services and ask for help with whatever is work related' (CSAt).

Guidelines on how to seek language revision were published on the department's intranet. These guidelines specified how work could be sent to the editor and what types of work were prioritised. While the editor worked with a wide range of genres (besides editing research articles, she also translated administrative reports, online materials and even examination questions), the guidelines did not suggest any system of prioritising particular types of commissions, nor did the editor describe such hierarchies in the interview. A key principle for organising work appeared to be a 'first come first served' policy:

(3)

Jobs that have been agreed on well ahead of time will be prioritised over jobs that are handed in at the last minute. In general, jobs that have to do with general administration or teaching will be prioritised over individual course pages, for example. (intranet guidelines)

The language editor suggested in an interview that while there might be genres which usually get priority there were no definite policies on this; instead, she described making decisions 'case-by-case':

(4)

CSTt: urgent administrative, texts always get priority, but, there's always, or it's always on a case-by-case basis, can they wait for a bit if there's an article which needs to be sent out, quickly

Nor were there distinctions in terms of what type of researchers could use the services (e.g. distinctions in terms of seniority). As noted above, the guidelines of the Doctoral Programme in Computer Science recommended that all students have their theses language revised prior to submission.

A more heavily managerial approach might have involved prioritising access for senior staff or giving priority for genres which generate funding for the department, such as research articles for a highly-ranked journal or grant applications. These kinds of practices were in place in other units we have studied; in one Arts department, for example, researchers had to indicate in their application for revision services where they intended to publish their article, specifying the position of the journal in the national ranking system.

However, it is evident on the basis of the interview data that the services of the department's in-house language editor were not a resource which staff competed over. In fact, the way the departmental administrator talked about the service suggested a concern that it was not used enough and that not all staff were aware of it.

(5)

CSAt: the last time I talked to her [the in-house language editor] she said what a pity it was that some people, it has sometimes happened that some people send articles to journals and then they receive, this is the frustrating thing the feedback says the language should, be corrected or checked and that's when they remember to bring it to her < IR: mm > it's happened with some international or new researchers they haven't maybe noticed, noticed that they could, use her services

In the excerpt, the administrator construes language revision as worth attending to since she assumes it might smooth a manuscript's route through peer review. However, she does not propose any greater regulatory role for her office or university management in general.

Interestingly, the language editor herself reported not knowing why and when researchers approached her for help with their text:

(6)

IRt: do you have an idea, of why people use this service or don't use this service or, is it always the same people who ask or

CST: the same people always ask, I don't know why others don't ask, maybe they have such confidence in their own skills that, they think they don't need help

The interviewee construes the non-use of the in-house services as relating to the writers' self-confidence as English users; they 'think they don't need help'. This is in stark contrast with the writer interviews, where writers described themselves making informed choices regarding whether to seek language revision and these did not relate simply to perceptions of competence.

On the whole, few top-down mechanisms could be identified which had an impact on English-language research writing in the computer science department. While guidelines on language revision were available to both staff and doctoral students, they were framed as recommendations and the use of the services was not monitored by administrators. The principal mechanism which could be expected to generate language regulation was the decision to fund an in-house language editor. However, her work was very lightly managed; she organised her work independently and there were no systems for prioritising particular genres.

We now move on to discuss what the regulation of research writing looked like from the perspective of researchers and their article writing practices.

Language regulation as part of the writing processes of research groups

The interviews with writers indicate that most research publications are co-authored (typically by 2–6 writers) and doctoral students often write with their supervisors. In line with previous research (Lillis and Curry 2006), our data suggest that various other participants, or brokers, also intervene in collaborative writing practices. These brokers had different roles and

functions that served the writing process. That various brokers intervened in the language of research texts also illustrates that authority in English was not always ‘outsourced’ to professional language editors. In fact, the data show that there was a great deal of variation in who writers trusted as language regulators, and thus, who they expected to intervene in the language of their research writing.

In this section, we consider how writers talked about these language-regulatory interventions: who intervenes in their English, what kind of intervention they expect from different brokers, and who can make decisions about what counts as appropriate, acceptable and functional English in the context of their research writing. We thus move on to consider the second research question, how regulation is enacted by intervening into language as part of researchers’ writing practices. We start the analysis by discussing the choices the researchers reported to make in relation to using language revision services, including the department’s in-house language editor. After this, we consider the various other brokers that the writers reported to intervene in their collaborative writing practices (i.e. regulation by a co-author/supervisor, colleague and peer reviewer).

With one exception, all six writers reported to use some form of language revision service, but not systematically, as part of every writing process. It varied to what extent writers reported to use language revision services – whether those provided for free by the in-house language editor or external services – as well as to what extent they deemed the use of the services possible (e.g. due to time pressures) or desirable.

A professor and head of research group (CSW2) suggested that he and his research group used the services of the in-house language editor; however, using the service was not a routine stage in producing a research paper:

(7)

CSW2t: we do use her services but not nearly always so maybe what should I say maybe a third or something

IR: when do you use these services

CSW2: it varies a bit depending on, well probably the most in terms of what my impression is how much the text needs it

The extract suggests that the professor is in the position of making decisions about the relevance of using language revision services and takes charge in deciding what counts as appropriate English in the writing of his research group. The same professor further explained that the decision to use the service partly depended on the kind of service on offer:

(8)

CSW2t: the language revision that we get at our department from our translator [i.e. the in-house language editor] is in a sense very technical and superficial it focuses on spelling mistakes and these kinds of small things so if there are things that have been expressed clumsily our [in-house] language editor does not intervene in them < IR: okay

> if there was also some kind of comment about how the text flows and what parts are difficult to understand and such it would definitely be much more valuable

The interviewee suggests that there are different levels of language revision, some of which are more useful than others in reaching the desired result. The extract encompasses some critique towards the reported focus of the in-house language editor on ‘technical and superficial’ matters when the need would be for a focus on ‘how the text flows and what parts are difficult to understand’. Another professor and head of research group similarly called for more detailed language revision that would go beyond ‘checking article mistakes’ and reported that his research group had just sent a paper to an external online language revision service that ‘had two categories, and we chose the better category where they also to some extent pay attention to how things are expressed’ (CSW3t).

This ‘better category’ was more expensive, but what the costs of the language revision were did not seem to have a decisive role. All of the interviewed writers worked in projects that contained funding for language revision, and unlike many colleagues at other institutions (cf. Li and Flowerdew 2007; Mur-Dueñas 2012), the heads of research groups could decide to use any service they saw fit. This also meant that they could choose to disregard the free services provided by the department.

In addition to the quality of the service, writers referred to speed as a key factor in choosing which language revision service, if any, to use. In the words of one of the doctoral students:

(9)

CSW1: it depends on the deadline, for the, especially for conferences it’s kind of difficult ((...)) we hardly get a chance to do the proofreading³ before sending [the paper for review]

One of the professors also reported time constraints as a reason not to use the in-house language editor’s services:

(10)

CSW3t: usually we want the language revision if possible within 48 hours or so and these web-based services provide it in this time so our language editor cannot possibly match that

Thus, while the in-house language editor was easily available in principle, the account suggests that writers could choose other service providers because the in-house one was not flexible enough in terms of their writing schedules.

As we saw in extract 7, heads of research groups were in a key position to make decisions about the need for language revision, but also co-authors participated in the decision making. In addition to time constraints, writers described the English skills of their co-authors as influencing their choice of using professional language revision services. For instance, one

³ While we use the term ‘language revision’, our interviewees also used other terms such as ‘proofreading’ to refer to the process where a language editor intervenes in a research text.

of the doctoral students reported that in the case of a co-authored paper, where one of the authors' English was deemed to be 'quite good', 'we did not actually see any, any particular need for proofreading [by a professional language editor]' (CSW1). Similarly, another doctoral student said that 'if the person writes well then I don't think language check is that much of a big, there might be a few spelling mistakes or a few grammatical errors, but it doesn't disturb the flow of the paper' (CSW5).

As illustrated in the above extracts, for the writers, professional language revision was not a generic service, a mechanical form of 'fixing the language' which could be uniformly provided by anyone with the appropriate credentials. Instead, the writers talked about language revision as varying depending on the provider and themselves as making meaningful choices in terms of whether they wanted the service in the first place, what kind of service they expected, who they sought it from and at what point in the writing process. How valuable the writers considered the services of the in-house language editor similarly varied depending on the circumstances.

In addition to regulation by language editors, the writers described a variety of other forms of regulatory interventions to which we now turn. One of these forms was interventions by co-authors. The forms that interventions by co-authors took are exemplified in the extract below. The interviewee (CSW4) is a senior scholar and lecturer. He differed from the other writers interviewed in the sense that he reported *not* to use any language revision services for his (first-authored) English language texts, but his comments are illustrative of what the writers reported about their practices as co-authors more generally.

(11)

CSW4t: we have someone who is the lead author who is the first author s/he in a way takes care of there being a text in the first place and different people contribute different parts to it then we rewrite quite a lot if I'm not happy with a text written by a research assistant I rewrite that part or someone else does and I do this a and the and other cleaning like I already told you @@ <IR: okay yeah yeah > that can be done later but it always bothers me so much that when I see something I change it

In the excerpt, CSW4 discusses the role of the senior scholar in intervening in texts written by his younger colleagues, both in terms of intervening in grammar ('I do this a and the and other cleaning') and by rewriting parts of the text. The account thus suggests that co-authors have different roles in the writing process and that the author's position in the research group and the co-author's perceived English skills may influence what the interventions are like.

The role of a senior scholar intervening in different aspects of a text was particularly evident in supervisee-supervisor relations. As suggested in extract 12 from an interview with one of the professors, such supervisor interventions relied on the experience of the supervisor, for instance their ability to frame the research within a wider perspective.

(12)

CSW2t: quite often the writing process is, depending on the student either so that the student is able to understand and realise and is able to adjust the text themselves or fairly often when this does not work then I rewrite the text so that it looks like what I was after and then we hope that everything happens in mutual understanding < IR: @uh@> and that things converge into a form that everyone can accept

The extract suggests that interventions by supervisors may result in heavy modifications and rewriting. The extract also illustrates the challenge supervisors face in balancing between providing guidance for writing (as educators) as opposed to rewriting parts of the text (as co-authors). Importantly, the above extracts illustrate how writers sometimes positioned themselves as language regulators (e.g. in the role of co-author or supervisor) rather than perceiving interventions into language as being solely the responsibility of a professional language editor. In the researchers' accounts, the forms that interventions by co-authors took relied on the co-author's role in writing the text (e.g. whether the co-author was also a supervisor), the co-author's position in the research group (e.g. whether the co-author was the group leader), and his or her perceived English and writing skills.

The local organisation of writing in research groups determined particularly the role colleagues took in intervening in each other's texts. Excerpt 13 starts with a follow-up question to the professor's comment about how he sometimes asks colleagues to read his and his research group's texts in order to 'gain more insights into the contents and the treatment of the contents' (CSW2t).

(13)

IRt: do these colleagues intervene in for instance the structure or something or < CSW2: yeah yeah > language related issues as well

CSW2: yeah yeah yes they very much do yes they may give and often do give severe critique about why @@ couldn't you remove this paragraph this is an unnecessary side track and what if you arranged these like this and a very common very useful thing is that someone just marks that this is difficult to understand what are you trying to say < IR: right yeah > this is unclear what is the point here

IR: yeah so these kinds of readability < CSW2: yeah > issues then

CSW2: yes those too and of course contents as well < IR: right > your method, why is it like this you could do it this way so a lot of this too and rarely do our colleagues have enough time to read through the texts in so much detail that they could comment much on the contents so it's more about how the contents are presented and are the contents clear as they are presented

In the excerpt, the interviewee describes situations where colleagues intervene in the presentation of the contents as a regular occurrence. Interestingly, the interviewee places value on colleagues marking those parts of the text that are difficult to understand, rather than on interventions in linguistic form per se. What the interviewee's comment implies is that certain kinds of interventions are more valuable than others, and that specific brokers may be expected to attend to specific aspects of the text. In particular, it seems that the interviewee

expects co-authors and colleagues to intervene in matters that a language editor does not or is not necessarily able to attend to.

The writer interviews further suggest that the format(s) of the publications are closely regulated within the discipline, for instance in the form of writing templates that pose restrictions on the length, structure and layout of the text and in the form of conference/journal guidelines on language use. In the words of CSW4t, ‘the choice of the publication venue is what influences [my writing]’. Rather than institutional orders (see previous section), it thus seems that disciplinary ones matter more to writers. Writers also reported that peer reviewers sometimes comment on the language of their text. For instance, a doctoral student reported that reviewers ‘especially comment on the readability of the content, and if there are grammar mistakes, they point out and sometimes they even suggest to get it proofread get things proofread’ (CSW1). Reviewers’ comments could thus be seen to function as a language-regulatory mechanism. However, perhaps more importantly, *expectations* the writers had about reviewer reactions seemed to be a major incentive for choosing to use language revision services in the first place:

(14)

CSW3t: it is usually an assumption that these reviewers have that they look down their noses if someone, that it is a sign of carelessness if you haven’t even checked the language there may be a comment sometimes if there are spelling mistakes that the auto-correction notices well hey could you at least try < IR: okay > you haven’t even checked this so at this level bad language in a way gives a careless and bad impression and we do want to remove it

In the excerpt, professor CSW3 connects the value of linguistic correctness to disciplinary requirements. He describes correctness as a sign of good and carefully conducted research and suggests that such correctness is monitored within the field. The interviewee reports that reviewers comment on ‘bad language’, including also spelling mistakes, and seems to perceive using language revision as a way to avoid such comments. That the interviewee singles out spelling mistakes as a sign of carelessness and bad language implies that he treats also ‘surface-level’ language issues as important and worth having corrected, even if on the whole it seems that the kind of grammar check required to correct surface-level mistakes was less valued by the writers than more detailed language revision (see excerpt 8).

Conclusion

The analysis has explored language regulation in the practice of writing for publication in computer science. We have analysed language regulation from a dual perspective, by relating how university administrators talk about language regulation to how individual researchers talk about the ways in which their writing is intervened in. The approach is innovative in the sense that studies of literacy brokering have seldom explored the interplay between researchers’ situated practices and the institutional setting they work in. While we know a great deal about how researchers organise their writing activities (e.g. Lillis and Curry 2006), we have lacked understanding of how their activities are situated within and affected by

organisational affordances. Similarly, the perspective of university administrators has been absent from most studies.

Our first research question addressed the institutional mechanisms which potentially generate regulation of English language writing in the Faculty of Science. The analysis shows that there were few explicit top-down mechanisms of regulating language quality. Language revision services were easily available for researchers in computer science, but the use of the services was not explicitly managed for example through monitoring their use or prioritising certain genres. The lack of monitoring is interesting in the light of increasing pressures on academic institutions to manage their publication quality with a view to research assessments. The institution that we studied was not immune to such pressures, but a managerial approach towards writing for publication was notably absent.

The second research question focused on how language was intervened in as part of the work of research groups. The analysis shows that the regulation of language quality within research groups was a collaborative enterprise, which involved various kinds of agency and forms of participation, while also being characterised by conventionalised patterns of decision-making (such as a central role for research group leaders). The researchers we interviewed construed themselves as having autonomy to choose whether to seek language revision and where and when to seek it. This autonomy also extended to financial decision making. It is perhaps particularly striking that researchers were able to seek language revision services without having to consider their cost (cf. Li and Flowerdew 2007; Mur-Dueñas 2012).

It is notable also that the researchers construed themselves as having ownership and control of their writing in relation to both their organisation and to professional language editors. Language revision was not imposed on the writers by their organisation, nor were language revision services sought as a matter of course. An active decision needed to be made, and as the data show, this involved deciding *what kind of* language revision writers wanted. At the same time, some writer interviewees positioned themselves as language regulators (e.g. in the role of supervisor or co-author) rather than perceiving interventions into language as being solely the responsibility of a language specialist.

The writers' construction of themselves as autonomous agents was supported by the non-interventionist ethos which emerged in the interviews with administrators. While the institution the researchers worked in exerted various kinds of normative pressure, it did not impose norms regarding what was acceptable English or who should intervene in the writing of research groups.

The setting we have analysed can be interpreted as a 'polycentric' environment, following Blommaert (2005, 2010). Blommaert (2010: 39) argues that, even in contexts or events which appear stable, language users necessarily need to observe norms and 'perceived appropriateness criteria' emanating from multiple centres of authority. Moreover, language users behave 'with reference to an evaluative authority' even when that authority is not explicitly intervening in or commenting on their language (2010: 39).

Our writer participants displayed orientations to multiple normative orders, but it was clear that they oriented more strongly towards a global disciplinary community than to their

organisational community. In determining what was acceptable English and what kind of language brokering was called for, the relevant norm authorities were journal editors, peer reviewers and colleagues rather than organisational actors. Normative pressure might be directed from senior scholars towards more junior ones, or from journal editors and peer reviewers towards groups of writers, but not from deans or heads of administration towards research groups. For the writers, disciplinary orders were clearly more salient than organisational ones.

The approach adopted in this paper allows an exploration of the different orientations towards language regulation and norms of appropriateness which are linked to the different positions studied, such as university administrator, head of research group, co-author and language editor. We argue that an analysis which is sensitive to these varying orientations is necessary in order to understand the complexity of evaluative regimes which writing is embedded in.

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Appendix 1

Speaker codes

FSA	Administrator (Faculty of Science)
CSA	Administrator (Department of Computer Science)
CST	Translator and language editor (Department of Computer Science)
CSW#	Research writer
IR	Interviewer.

Translations are marked with a 't' after the first speaker code in the translated extract.

Transcription conventions

<IR: text> Backchannelling within angle brackets when marked within another speaker's turn

, Brief pause
@@ Laughter
@text@ Spoken laughter
((...)) Text omitted from transcription
[text] Text added for clarity by writers of this paper