



Language policy and multilingualism in semi-peripheral higher education research: Two cases from a University in Catalonia

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ABSTRACT

This study aims to contribute to the limited literature on language policy in research, where the increasing domination of English has raised concern about the displacement of other languages. The present ethnographic (multiple) case study tackles this issue from the context of Catalan higher education, whose institutions find themselves in the conundrum of being called to support local language/s and at the same time to embrace the preeminent international language: English. Multiple types of data have been collected from two university research groups, and analyzed through thematic and content analysis as well as through critical discourse analysis. Results suggest that the lack of specific strategies regarding language use in research may result in the imposition of English and in the displacement of local languages. Yet, Catalan institutions' semi-peripheral position in the global academia, with less pressure than the center, might afford opportunities for alternative practices that might challenge dominant tendencies.

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1. Introduction

Globalization seems to have influenced European higher education (HE) in the sense of pushing universities towards a process known as 'internationalization'. It has been defined as "the process of integrating an international, intercultural or global dimension into the purpose, functions or delivery of higher education at the institutional and national levels" (Knight, 2008: 21). In HE, this process typically consists in implementing measures like fostering the international mobility of students and staff, and increasing the presence of English in courses and official documents, in order to attract overseas students.

Within Europe, a case in point is that the structural convergence of national HE systems is intended. At the same time, official documents advise national governments to take "full respect of the diversity of cultures, languages, national education systems and of university autonomy" (Huisman & Van Vught, 2009: 21–22), without offering the clue as to how to accomplish what these authors call an "organized diversity". Euphemisms and marketing rhetorics are common in official documents of the European Union (EU), which make reference to "a Europe of knowledge", "respect of the diversity of cultures, languages, national education systems", "the challenges of the new millennium" or "the building of the EU

knowledge society" (e.g. Bologna Declaration of 1999 and the Lisbon Strategy of 2000). But the extent to which the European dimension should be integrated into the institutional level remains unclear (Callan, 1998).

Regarding research, the EU intends to stimulate cooperation among scientific and technological institutions within Europe through several measures contained in the European research area (ERA). The ERA, defined by the European Commission as "[a] European area of free circulation of researchers, knowledge and technology" and "[a] unified area, open to the world, based on the internal market" (EC, 2016: 3), is a policy that aims to promote the interconnection of national research systems within Europe and a European "market" for researchers, in order to increase the competitiveness of European research.

The importance of the research dimension in the internationalization of HE lies in the consideration of research success as the primary measure of academic career advancement, which can be found in most countries in Europe. Consequently, international ranking schemes and global markets for researchers, research training and research products have become significant measures of HE institutions' competitiveness and quality; and success is measured through publications in high-impact journals with international reach (Reichert, 2009), mostly published in English (Englander & Uzuner-Smith, 2013). In terms of language, a trend in Europe is that policymakers opt to change curricula from local languages to English, which generates language constraints,

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as well culture- and politics-related controversies (Kerklaan et al., 2008).

2. Language policy in Catalan HE

The current study is framed within the context of Catalan HE, whose institutions are increasingly called to meet the requirements of internationalization. Catalonia, with a population of 7.7 M (in 2021), is an autonomous region of Spain (with a population of 47.4 M in 2021). Its official languages are Spanish (the official language in all Spain), Catalan (the historical or 'own' language of Catalonia), and, since 2010, Aranese Occitan (the historical or 'own' language of the Aran Valley, a region in the Catalan Pyrenees with a population of 10,175 in 2020). Catalonia has seven state universities and a privately managed online university offering public service, with a total of 258,576 students overall, 20,781 teaching and research staff and 923 consolidated research groups (year 2012–13) (ACUP, 2021). In terms of language use, these institutions have reflected the process of internationalization through language policy plans that deal with the dilemma of supporting the local language/s and at the same time embracing multilingualism and expressly the preeminent international language: English. This dilemma has been widely described in the literature (i.e. Cots, 2008; Cots et al., 2013; Gallego-Balsà et al., 2022).

In Catalonia, university internationalization policies are regulated by the Law 1/2003, of February 19, of universities of Catalonia. The main aim of this law is "to contribute to the construction of a deeply universalist university system and, in particular, Europeanist" (our translation).¹ With reference to internationalization and language, the Law states:

Internationalization and mobility must be compatible with the maintenance of the presence of the cultural characteristics of Catalonia in the university and, in particular, of its language, which is also the language of Catalan universities. Any culture's language needs to be alive and strong in higher education... (our translation)²

This goes in line with one of the 'objectives of the Catalan university system', as stated by the Law, that is, "[t]he incorporation of the Catalan language into all areas of knowledge and contribution to the process of normalizing the scientific, cultural and social use of Catalan" (our translation).³

Catalan universities have autonomy as regards their language policy (language use in internal and external official communication). This is regulated through individual charters of each institution. According to the latest major survey on language use in Catalonia (Direcció General de Política Lingüística, 2019), Catalan is the usual language for communication of 36.1% of the population, Spanish of 48.6%, both languages of 7.4% and other languages of the rest of the Catalan population. Aranese does not reach 0.1% of the population. In HE, Catalan is the main language used, and it is favoured in HE institutions' administrative and educational activities. Most university courses in Catalan state universities are offered in this language. In the academic year 2018–19, 19,128 courses were offered in Catalan, 7,775 in Spanish, and 6,999 in English. The number of courses offered in Catalan that year increased by 1,283 with respect to the previous year, those offered in Spanish by 942, and those in English by 520 (Generalitat de Catalunya, 2021). The use and protection of Catalan is a concern in these institutions, but any student or citizen has the right to use

¹ Catalunya. Llei 1/2003, de 19 de febrer, d'universitats de Catalunya. DOGC 3826 – 20.2.2003: 3326.

² Catalunya. Llei 1/2003, de 19 de febrer, d'universitats de Catalunya. DOGC 3826 – 20.2.2003: 3327.

³ Catalunya. Llei 1/2003, de 19 de febrer, d'universitats de Catalunya. DOGC 3826 – 20.2.2003: 3328.

any of the official languages of Catalonia. And English is increasingly being introduced as the third language in the 'multilingual' model of Catalan universities (Soler & Gallego-Balsà, 2019).

The current study focuses on two cases from one of the Catalan state universities. In the researched university, language policy is regulated by two documents. The first proposes "the functional distribution of languages so that necessary multilingualism can be combined with the 'normalization' of Catalan" and the promotion of English "as a lingua franca of the international scientific community" (*Operational Plan for Multilingualism*). And the second mentions Catalan, Spanish and English as the languages permitted for the writing of PhD dissertations, and less prominently, French and "the usual languages used in scientific writing in the field of knowledge" (*Academic Regulations on Doctoral Courses*). In this institution there are no explicit norms as regards what language should be used with administrative staff besides the preference given to the Catalan language in Catalonia, and the right of all citizens to use any of the official languages in Catalonia (i.e. Law 1/1998, of January 7th [DOGC 2553, 9th, and BOE 36, February 11th], of language policy⁴).

Apart from the official and explicit language management, Pons Parera (2015) identifies two strong factors that condition language use in Catalan HE. On the one hand, Spanish centralized institutions and systems –like scholarship and funding system, Spanish centralized professional careers, etc.– favor the use of the Spanish language. On the other hand, the promotion of European and international engagement of researchers –also through international conferences and transnational research projects– by the Catalan government fosters the use of English. Furthermore, researchers' qualification system in Spain is mainly based on citation index impact factors, which again favours research written in English (Kancewicz-Hoffman & Pölönen, 2020; Kulczycki et al., 2020). The number of doctoral dissertations written in Catalan in Catalonia –25% in 2012 and 23.47% in 2020– is steadily decreasing, despite the Catalan governments' line of financial support for this type of works, while those written in Spanish stay stable and those written in English are increasing (Massaguer-Comes et al., 2021; Pons Parera, 2015). The Catalan government also supports some Catalan scientific publications; and Catalan universities support publications written in this language by means of their own publishing services. Despite this, private publishers are more prone to works written in Spanish in pursuit of wider markets of Spain and Latin America (Pons Parera, 2015).

3. The language/s of science

Research on language policy in scientific teams is very scarce. Most studies on language use in research focus on formal scientific communication, like publications and other scholarly disseminations. Concerning language use in science, English has been pointed at as the prevailing language worldwide, which has raised concern about the (lack of) use of other languages (Ammon, 2001; Dubova et al., 2020). There is extensive literature on the predominant use of English for scientific publication (i.e. Ferguson, 2007; Tardy, 2004; Wood, 2001). Reasons for the use of English by non-English-L1 researchers are the pursuit of prestige, of an international specialist audience and of a broader readership (Englander, 2009). In this area, differences have been reported between scientific fields and countries. The natural sciences have been found to be more English monolingual while the social sciences and the humanities tend to be more multilingual, and re-

⁴ Llei 1/1998, de 7 de gener (DOGC 2553, del 9, i BOE 36, d'11 de febrer), de política lingüística

searchers in Western and Nordic European countries publish more in English than those in Central and Eastern Europe (Medgyes & Kaplan, 1992; Ochsner et al., 2020). Kancewicz-Hoffman & Pöhlönen (2020) point at three causes for such differences: the scholarly tradition, the size of the local language audience and the criteria for scientific evaluation and funding allocation. Concerns regarding the domination of English in science include the infringement of non-English speakers' linguistic rights, their unequal opportunities vis-à-vis English L1 speakers, the potential disappearance from science of other languages (Ammon, 2001) and the underdevelopment of the scientific variety in languages other than English (Gunnarsson, 2001).

With reference to the politics behind the use of English as the global lingua franca for academic texts, and based on Wallerstein's (2004) 'world systems theory', Bennett (2014) distinguishes three zones of behavior in academia (center, semi-periphery and periphery) (see also Santos, 1985, on this idea). These vary in the amount and quality of available resources, in prestige, in the strength of the meritocratic or 'publish or perish' (see Nygaard, 2015) culture, and in the hegemony of English, among other aspects. In this context, semi-peripheral institutions act as mediators filtering knowledge, models and techniques from center institutions and making them available for peripheral ones. In terms of language, semi-peripheral nodes are also usually language brokers between English and other languages. The tendency is for the semi-periphery to approach the 'necessary' center –which is source of funding and collaborations– and to enrich it with new inputs. This is only possible whenever the disdain for peripheral elements, typical of semi-peripheral actors (Bennett, 2014), is overcome. Despite being in an underprivileged position compared to center players, the semi-periphery –as in the case of Spain (and Catalonia)–, as a 'contact zone' with less pressure than the center, may afford also opportunities for alternative practices and in-between positions which might challenge dominant tendencies. Spain is thus the 'middle class' in the global academic context; in a position where national policies that follow center norms and trends are being imposed on universities, for instance in the form of national research evaluation frameworks (Burgess, 2014), but also where alternatives may arise and have still some room to be accomplished.

Few studies have looked at language use beyond researchers' publishing practices. After observation of specific interactions among researchers working in Europe, in diverse types of groups, with diverse purposes and from diverse fields, Mondada (2005) asserts that the use of English as a lingua franca is neither the only strategy adopted by researchers in their interactions, nor even the most widespread one. Instead, multiple languages are diversely used by researchers even within one same communication session, responding to their local accommodation to the contingencies of the particular interaction. Also looking at researchers' language use, Melo-Pfeifer (2020: 308) accounts for researchers' reported "complex multilingual practices". The languages chosen appeared to depend on different factors, like the researcher's linguistic repertoire (including her proficiency in the different languages), her intentions, her target audience, her research field, her language ideologies and her beliefs about the advantages of using each language. Also remarkable is the fact that Melo-Pfeifer's (2020) participants were language teacher educators and had knowledge of at least one Romance language. This research suggests that "the production of science is more plurilingual than the dissemination of its results" (Melo-Pfeifer's, 2020: 309). But more research is needed on the specificities of such multilingualism and the intervening factors.

Within the Catalan context, Vila et al. (2012) explore language practices in a Catalan university research center: The Scientific Park of Barcelona. The study concludes that (a) Spanish and Catalan

are predominant within the Scientific Park; (b) plurilingual practices (Spanish, Catalan, English) are usual; (c) these languages have slightly different uses: Catalan for internal communication, institutional communication and administrative transactions, and external communication with locals, English as an international language for external communication within the scientific domain, and Spanish has a hybrid use, sharing some traits with each of the other two languages –it is used for some external communications, especially within Spain, and internal communications, especially with foreign researchers, who tend to learn Spanish probably due to the scarce presence of English in the Catalan society–; and (d) English is the preeminent lingua franca in conferences, even in national ones, and in written scientific papers.

Given the commonalities with this research, studies on language policy in the workplace, and specifically in international(ized) organizations, should also be considered. These studies share some traits with the current work, such as their focus on a workplace setting and their exploration of an ambiguous sociolinguistic context, in which two types of policies clash: those favouring the use and protection of local languages and those fostering the use of *linguae francae*, especially English. In such research, English has been pointed at as the chief default language in international business (Angouri, 2013; Angouri & Miglbauer, 2014). But it is not necessarily the only language used in the workplace. Within the Spanish context, van der Worp et al. (2016) found that the internationalization of Basque corporations entailed an increased use of English for external communication, while ad-hoc solutions were found for other languages due to the lack of specific policies in this regard. This circumstance resulted in the prevalence of Spanish and the restricted use of Basque in internal communication.

The current study aims to contribute to the field with in-depth, qualitative, longitudinal and comparative research on linguistic practices of researchers and intervening factors, as claimed by Melo-Pfeifer (2020). This is the nature of the current work. The research question guiding our study is: *In the context of the ongoing internationalization of HE (and of science), what language policy do research groups based in Catalonia abide by?* It thus intends to shed light on these researchers' language use in daily professional practices and in both formal and informal communication.

'Language policy' has been variably defined in the literature. It might either refer to "a body of ideas, laws, regulations, rules and practices intended to achieve the planned language change in the society, group or system" (Kaplan & Baldauf, 1997: ix), or to the combination of language ideologies and beliefs, language use and language management (Spolsky, 2004; 2007). This latter conceptualization considers that all language decisions and practices "make" language policy, and hence distinguishes among notions such as 'national language policy', 'outward evidence of language policy', 'public practice', among others (see Spolsky, 2004). Considering that the latter is a widely used understanding of the concept in minority language literature (i.e. Austin & Sallabank, 2011), this has been the acceptance used in this study. Accordingly, a research group's language policy will be understood here, following Spolsky (2004, 2007), as consisting of language practices (usual patterns of language use), beliefs about language (use) and the management or planning of language use. And the singular form of the term ('language policy') will be used as a collective term comprising a complex set of actions, documents, ideas and discourses. Considering that Spolsky (2004) notes that language policy is present in different levels of social life, from smaller groups, like families, to transnational speech communities, we deem research groups a suitable site for its examination at a micro level of analysis –that of individuals' interactions–, below the institutional (meso) level and the inter-institutional (macro) level.

4. Methodology

This study is part of a larger project exploring the impact of the internationalization of HE on researchers' daily communication. This paper focuses on those aspects related with language policy in two research groups (RGs). This is hence a (multiple) case study exploring multiple 'bounded systems', two RGs, in depth and over a certain time lapse, through the collection of multiple data sources (see Stake, 1995). The choice of the RG as a 'case' corresponds to the significance that this construct is given in the specific socio-cultural context of this research study: scientists in Catalonia are almost exclusively attached to a particular RG. This acts as a management unit to which researchers are accountable and from which they receive support of diverse types (financial, material and human). The RG is also officially recognised by the Catalan government through its granting agency (Agència de Gestió d'Ajuts Universitaris i de Recerca, AGAUR), which makes triennial calls for research teams to certify their achievements in order to get funding. This way, the RG is 'reified' through a process of institutionalization and becomes an identifiable, significant unit. Exploring two cases instead of only one permitted the interpretation of observed phenomena not only through the identification of patterns, but also through the contrast and comparison between both RGs (see Stake, 2013).

Both RGs studied –here 'Group A' and 'Group B'– were working in the field of natural sciences. During the period of data collection, one group was composed of 13–16 members and the other one of 12–15 members, variably (due to the group members' frequent turnover). Group members' nationalities were 1 Mexican, 1 Indian, 1–2 Chinese, 1 French, 1 Greek, 1 Cypriot, 1 Italian, 1 Spanish, 1 Basque/Spanish and 5–6 Catalan/Spanish (in Group A); and 0–1 Argentinean, 2 Indian, 1 Bulgarian, 0–1 Dutch, 1 Spanish, and 9–11 Catalan/Spanish (in Group B). The 'multinationality' of these RGs was *a priori* deemed a hint of internationalization, linked to a typical academic internationalization activity like student and staff mobility (Altbach & Knight, 2007). This was the main reason why they were selected as cases.

Both groups were structured hierarchically, at least formally, in three levels: they were led by a group leader, followed in authority by several senior researchers that were accountable to the group leader, and some of which supervised the junior researchers more directly. Also, among the members of this third hierarchical level –junior scientists– there seemed to be a formal hierarchy tied to their training rank (whether they were postdoc researchers, PhD students, MA students or undergraduates). Group A was composed of one leader, three senior researchers, 8–9 PhD researchers, three undergraduate researchers and one secretary. Group B was composed of one leader, four senior researchers, two postdoc researchers, 5–6 PhD researchers, two MA researchers, one undergraduate researcher and one laboratory assistant. This rank differentiation seemed to correspond to some extent with their assigned workspace. In both cases, the group leaders' working headquarters was their office, while junior researchers spent most of their time working at the lab bench. This feature varied among senior researchers. In Group A, one senior researcher, Cecília, had her office as her headquarters, while Hao (senior researcher) had his workspace in the lab (in front of a computer), and Vince (senior researcher) used to devote most of his working time to teaching activities (between the classroom, the laboratory and his office). In Group B, all senior researchers and the group leader were based in their corresponding offices and carried out teaching activities also.

In order to answer the research question, ethnographic research was conducted throughout 11 months so as to observe the participants' daily practices in their workplace, and with the aim of "identif(ying) and interpret(ing) regular patterns of action and talk that characterize a group of people in a social context"

Table 1
The data set.

	Group A	Group B
Field notes (80 words/page)	251 pages	71 pages
Audio recordings:	171 (6487 min.)	50 (1918 min.)
Field audio recordings & informal interviews	161	42
Semiformal interviews	10	8
Focus group interviews	1	1
Field video clips	51 (1286 min.)	13 (363 min.)
Photographs	83	30
Collected documents and files:	610	manifold
Emails	>500	manifold
Paper drafts	110	–
Others	manifold	manifold

(Creese, 2010: 146). Group A was visited on 43 occasions and Group B was visited on 15 occasions. This imbalance of visits followed interests related with the larger study, and was based on considerations like the dynamicity of the group (in Group A group meetings were held more often, whereas Group B engaged mostly in lab activity and less in group interactions), and the accessibility to data (Group A included the researcher in mailing lists, its members invited the researcher to different kinds of events, and the group leader showed high interest in participating in the study and facilitating different kinds of data). Yet, the lower number of observations of Group B was counteracted by the triangulation of observed events with specific questions in interviews with its members. In this respect, it must be noted that the observed phenomena in Group B matched the declared language behavior in the interviews with its members. 15 visits of diverse lengths combined with interviews were enough for the researcher to get a nuanced picture of Group B's language policy.

The data collection for the larger project comprised multiple techniques, like direct observation (supported by field notes), semi-formal and informal interviews, audio and video recordings of spontaneous interactions, photographs and the collection of original documents (i.e. emails, paper drafts and publications). The table below summarises the content of the database generated after data collection (see Table 1).

Interviews were held in different languages, depending on the interviewer's and the interviewee's linguistic profile as well as on the preference of the latter. They were held in Catalan with Catalan (L1) speakers and with Vince (French L1–Group A), in Spanish with Spanish (L1) speakers and with Dana (Bulgarian L1–Group B), in Greek with Greek (L1) speakers, and in English with the other interviewees.

The presence of the observer in the participants' workplace during 11 months resulted in the development of a complex relationship. Participants showed awareness and bewilderment at the beginning, but seemed more comfortable in later occasions, to the point that the researcher was invited to out-of-work events with Group A members on different occasions. The observer's linguistic profile may have brought her closer to those participants with whom she shared a language (e.g. the fact that she could speak Greek may have facilitated interactions with speakers of Greek in Group A, while interactions with those participants who had difficulties with English were difficult and thus scarcer). Other shared features that might have brought her closer to some participants were: interest for languages, for socializing, for being observed, shared background, living context, habits, hobbies, and researcher identity and activities, among others. The observer's impact onto the data was evident in some participants' occasional comments in her presence showing their concern about their use of swear-words or about their inaccuracy when using English, which may indicate that her presence raised those participants' awareness of

their communication practices. In contrast, being an outsider and having a researcher identity herself may have aided her gain the participants' confidence for different reasons: because they could identify themselves with the researcher; because she did not have clashing interests with theirs; and because she was not assessing their performance at work.

The analysis of the data has followed thematic and content analytical methods (see Guest et al., 2012; Schreier, 2012), as well as critical discourse analysis (Wodak & Meyer, 2009).

5. Results

The data analysis has revealed that in both RGs the beliefs of the group leaders regarding languages, determined in turn by their own linguistic repertoire and experiences, may be influencing the shaping of the management of their RG's language policy. Yet, as will be set forth here, the language practices of group members both complied with and resisted such authority. In what follows, the language policy of each RG will be described and illustrated by excerpts from the data.

5.1. Group A's language policy

Group A's leader, Frank⁵ (Greek L1) could speak very little of either Catalan or Spanish languages. He had a wide international experience, having worked in countries like the US, the UK and Germany before Spain. He used to speak English with other group members and advocated for an English-only (or mainly) rule within the RG. In the next excerpt, Frank narrates the moment in the past when he decided that English had to be the only language used in the RG ('everybody does it in English'), which he deems a solution to a 'problem' [excerpt 1].

Excerpt 1: Interview with Frank (Group A's leader) [original in English]

Researcher: You were * you were saying that actually +uh+ it's the language that brings a special kind of thinking with it\ Right/

Frank: No\ It's the reverse\ (...) It's the thinking that is modified if people use their own language to interpret things\ We're maybe saying the same thing in different ways\ (...) But if I * I give a scientific problem to an Indian_ (...) I'm just using I would say_ somebody from any country\ (...) and I ask him to make an interpretation in English_ or in their own language_ I'm going to get two different stories\ (...) And I don't want to mess around with this\ (...) Because it causes chaos_ (...) And_ I said_ okay_ everybody does it in English\ And that way I solved my problem\

This excerpt reflects Frank's belief that using languages other than English for communication in the RG would be 'mess[ing] around' and 'caus[ing] chaos'. Frank believed that the language of expression determines the way in which science is explained and hence using one language only in the RG facilitates comprehension.

Regarding the use of English, in Group A Frank acted as a first language editor for all group members' written and oral texts aimed to transcend the RG. An example can be seen in the next excerpt, corresponding to the first rehearsal of Tània's PhD defense [excerpt 2].

Excerpt 2: Tània's PhD defense rehearsal 1 (Group A) [original in English]

Frank: ...Be careful with the English\ (...) +Uh+ your thesis is not called\ Your thesis is entitled\ Okay/

Tània: Okay\

Frank: So_ you are going to defend your doctoral dissertation entitled [confidential]\ When you say_ you're going to introduce_ you don't introduce your panel\ So you don't say_ I'm going to introduce you_ or I'm going to * +uh+ I don't know what was the

other * +uh+ or I'm going to explain you_ (...) So_ be careful with +uh+ * with how you do it\

In this excerpt Frank adopts a language counsellor role and advises Tània (Catalan L1) in terms of vocabulary and grammar in English. For oral texts, Frank acted in practice as the highest authority and the custodian of the "correct" (scientific) English within the RG. As a consequence, group members' use and style in (scientific) English relied highly on the group leader's proficiency and beliefs as regards what constituted linguistic adequacy.

After Frank's revision, written texts were sent to Tim, a Scottish former scientist who had been collaborating with Frank as a scientific writer or proofreader for 20 years. This revision process is described by Frank in the next excerpt [excerpt 3].

Excerpt 3: Interview with Frank 2 (Group A's leader) [original in English]

Frank: Well_ I mean_ you see that I correct very few linguistic errors\ Because if I were to correct everything_ I wouldn't be doing anything else\ So_ I try and point out what I think are the most important linguistic errors\ And then we have a science writer_ who's Tim_ who is a native English speaker\ Which I've been * I mean_ I've been working with him for the last twenty years\ So_ +uh+ whenever I get a manuscript_ or a chapter for a thesis_ or whatever_ I do a * I go through it_ and I * I correct more the content than the language_ I point out a few language things_ but I normally_ I don't worry too much about the language_ and then I say_ okay_ let's fix the content_ and then they interact with Tim one on one to sort out language\

Note that Frank underscores the fact that Tim is a 'native English speaker', as a self-evident asset, a necessary cultural capital (Bourdieu, 1977).

All members of Group A used to write in their lab notebook in English (mainly) and used this language in their PhD dissertation, in scientific articles, in group meetings and in all oral presentations within the RG. Frank's linguistic repertoire and authority determined all those language practices in which he was involved. Yet, whenever Frank was not present, other languages were often used among group members, depending on the interlocutors' linguistic repertoire. Cecília, Angus, Carol, Xènia, Tània, Ainhoa and Joana often spoke Catalan with one another and with Vince (French L1); they spoke Spanish with Mikela, Rober, Lurdes and Ale (Italian L1); Hao and Lian spoke Chinese; and Mara and Frank could speak Greek with each other but did so very sporadically.

The language policy of the RG was framed within an ambiguous context and was ambiguous itself. While the wider socio-political context of the nation-state and of the institution endorsed the use of Catalan and Spanish at university, the highest authority of the RG urged its members to use English. And in Frank's absence, group members' language practices included other languages depending on the communicative event and on the interlocutors involved. This situation generated tensions among group members. In the following excerpt, Lurdes (Spanish L1), a BA researcher being mentored by Carol (PhD researcher – Catalan L1), makes reference to such tensions by narrating how Navil (PhD researcher – Kannada L1) often requested the use of English in the lab [see excerpt 4].

Excerpt 4: Interview with Lurdes (BA researcher – Group A) [original in Spanish]

Lurdes: And it's also curious this thing with conflicts and so _ that there is a little_ * I mean_ not conflicts * (...) more likely due to cohabitation\ I believe\ (...) Navil is always saying_ speak English\ (...) Because otherwise he doesn't understand\ (...) I don't think he likes it_ you know/ Saying_ * Having to say that\ You know/

In this excerpt, Lurdes (Spanish L1) shows sympathy with Navil since she has experienced herself the discomfort at hearing Catalan being used by other group colleagues and not understanding it. As

⁵ All names are pseudonyms.

reflected in this excerpt, English was not only the legitimate *lingua franca* in the RG but also the one that guaranteed ‘cohabitation’ in the laboratory and hence a matter of ethics and comradeship. Such legitimacy was often drawn upon by Navil to demand the use of English by his group colleagues.

The use of English was also strongly supported by a senior researcher, Cecília (Catalan L1), who believed that Catalan was useless for science and even a ‘problem’ [see excerpt 5].

Excerpt 5: Interview with Cecília (Senior researcher - Group A) [original in Catalan]

Researcher: The whole issue of Catalan_ and the revitalization_ normalization of Catalan_ =You say that this cannot * cannot affect you\=

Cecília: = But it’s just that I * This is of no use for me at all\= It’s of no use for me_ because I wasn’t normalized_ I’ve spent ten years abroad_ I come here_ I say different words_ but I don’t care\ Because the way I speak doesn’t bring a penny_ to me\ It doesn’t bring me anything\ What brings me something is what I think and what I write\ And what I think and what I write I have to do it in English\ Then Catalan to me what it brings me is a problem\ (...) Once we tried to organize a Catalan course here_ for them [foreign group members]_ and they told me it wasn’t necessary\ {(@) That this was a waste of time\}

For Cecília English was the only language necessary in science. The market-oriented perspective that Cecília adopts positions English as the only cost-effective language. English is perceived as a necessary resource for publishing, which is in turn a paramount capital in science. Dedicating time to learning Catalan by non-Catalan group members would imply devoting less time to science, and it would be an obstacle in their career, a ‘waste of time’.

For Cecília, the key to a positive attitude on the part of group members towards using English was the mixing of linguistic repertoires in the RG [see excerpt 6].

Excerpt 6: Interview with Cecília (Senior researcher - Group A) [original in Catalan]

Cecília: Here we all accept to speak English\ But for example_ in the [foreign research institute]_the Spaniards joined the Spanish community\ Then they did not practice English\ The Chinese_ with the Chinese community\ The Indians_ with the Indian community\ Then they created different communities_ and there certainly was a problem of * of communication\

Researcher: So_ maybe_ the key somehow of the group is that there’s a bit of mixing_ right/ That there’s no +nst+ *

Cecília: It’s the mix\

Researcher: majority of a = nationality_ =

Cecília: =No\ It’s the mix\= (...) It’s the mixture\ It’s the mixture\ Because if there were half Chinese_ and half Catalans_ there would be only two languages\ Chinese_ and Catalan\

Note that when Cecília argues that the clue to the fact that all Group A members ‘accept speaking English’ is ‘the mixing’ of nationalities and linguistic repertoires, she does not make reference to the English-only rule imposed by the group leader. Once more, the use of languages other than English is categorized as ‘a problem’.

Cecília’s attitudes towards languages other than English contrasted with other group members’ attitudes. For example, Hao (senior researcher - Chinese L1), who had worked in different countries, like China (his country of origin), Japan, the UK and Germany, before Catalonia (Spain), declared that other languages are ‘very important’ [see excerpts 7 and 8].

Excerpt 7: Interview with Hao (Senior researcher - Group A) [original in English]

Researcher: Don’t you think that * that it would be good * +eh+ that English is enough to * =to * to * to communicate/ Or to work/=

Hao: =No\ No\ No\ = I don’t think so\ I think lan& * +uh+ for me_ I go to different countries_ I think language is very important\ Even Spanish and Catalan_ now I cannot speak very well_ but I think it’s very important\ (...)

Researcher: So *so language can open you doors_ for instance\

Hao: Of course\ Can\ If suddenly you speak +uh+ your native language that makes your distance very close\ You can make very good friends if you work in the same field\ Yeah\ Not only Japanese_ and German_ of course\ Even if you don’t use it in your research\ But if you speak German_ then you are very easily to make friends with Ger& * +uh+ with Germany * German\ You know/

Excerpt 8: Interview with Hao (Senior researcher - Group A) [original in English]

Researcher: So_ you think that language is important_

Hao: It’s important_ yeah_ yeah\

Researcher: +Ehm+ why didn’t you learn Catalan/ For instance\ Because you said that you * here * Catalan here * it’s easier to hear Catalan than Spanish here_

Hao: No\ Catalan_ because for * for my case I think I should study Spanish\ For example_ if I go to Madrid_ for sightseeing or for XXXX_ I cannot_ like my kids_ study Spanish and at the same time I study Catalan\ I don’t think so\

While in the former excerpt, Hao emphasizes the advantages of learning others’ ‘native language’, like bringing people ‘very close’ and making ‘very good friends’, in the latter we see how this belief backs the learning of Spanish rather than Catalan. Hao’s national-language ideology prevails over his perception that Catalan is more present in his local social milieu.

Similarly, Mara (Greek L1) insisted that her aim was to learn Spanish and not Catalan, arguing that the former could be of use in other parts of the world, like Latin America or America (meaning the US) [see excerpt 9].

Excerpt 9: Interview with Mara (PhD researcher - Group A) [original in Greek].

Mara: I did not learn Catalan on my own initiative\ Because from the [university’s direction] they wanted to... * Cecília had some pressure_ let’s say_ to bring a teacher to [the faculty]\ (...) Then everyone wanted Spanish\ Nobody wanted Catalan\ Lian_ Navil_ me_ Who else was there/ Enough had said so * enough guys\ And not only from our laboratory\ From... everywhere\ But to... * since everyone wanted Spanish_ they forced us to do Catalan first\ It was like {(Eng) fused lesson}\ Which was half Catalan_ half Spanish\ (...) And they brought us a teacher\ Which was a free course_ but you had to buy all the books in Catalan\ (...) And I didn’t want to buy a Catalan book\ I wanted to buy a Spanish book\ I wanted to learn Spanish\ Catalan_ what would it help me with/ At least_ +uh+ Latin America_ or even in America_ I don’t know_ XXX is * you can use it\ You say_ okay\

In this excerpt Mara represents herself and other colleagues as having been forced by their university to take Catalan-Spanish ‘fused lessons’ although they all wanted to learn Spanish only. Once again, Catalan, the local language and the most limited one in terms of the number of speakers and geographical coverage, was perceived as useless and as an obstacle.

5.2. Group B’s language policy

Group B’s leader had Catalan and Spanish as his L1s. He had some international working experience, especially in the US. As regards the RG’s language management, he declared not having imposed any *lingua franca* in the RG, and hence languages were used freely, depending on the linguistic repertoire of interlocutors. This was corroborated by Lola (Argentinian postdoc researcher), who reported using Spanish, English and Catalan for her daily professional practice in the RG, depending on her interlocutor [see excerpt 10].

Excerpt 10: Field notes_Observation Group B (Pages 3–4) [original in Catalan]

«Lola says that she finds my research interesting because she speaks Spanish with some, English with others, writes emails to Fina in Catalan...»

Most members of Group B (9–11), including its leader, were Catalan-L1 speakers and thus communicated with each other mainly in this language. Moreover, three non-Catalan-L1 speakers (Lola, Dana and Charo) could understand this language but would speak or write back in Spanish. There were only three group members (Tira, Yamir and Jetta) who could not understand Catalan (nor Spanish) and hence communication with them would take place in English. Tira and Yamir would speak Tamil with each other. Multilingualism within the RG was probably eased by the group leader's loose language management. In the next excerpt, in which Pere (Group B's leader) co-constructs with his two interviewers the RG's usual language practices, his carefree stance in this regard is illustrated [excerpt 11].

Excerpt 11: Interview with Pere (Group B's leader) [original in Catalan]

Researcher 1: Because they_ on a daily basis_ well_ They use English_ basically_ whenever they read papers_ it's then whe& * when they use English\

Pere: Yes\ Unless there's someone in the laboratory_ =+uh+=

Researcher 1: =Exactly\= Then maybe to talk to Yamir_ or to Tira_

Pere: Right\

Researcher 1: or with Jetta_ when she was there_

Pere: Right\

(...)

Researcher 1: Beyond that_ English_ on a daily basis is not_

Pere: No\

Researcher 1: They don't use it\

Pere: No\

Researcher 1: Okay\

Researcher 2: Because when they write reports_ and so_ they do it in their language\ (...) In the notebook\ =the lab notebook_ or so\=

Pere: =In their language\=

(...)

Researcher 2: But Indians do it in Eng& in English\

Pere: In English\ Well_ I think\

Pere's last words ('Well_ I think\') denote his little interest in the language that group members used for writing in their lab notebooks, which was also Pere's general attitude as regards language use within the RG. As described here, Catalan was the default language used by most group members 'unless there's someone in the laboratory' not understanding this language. In specific interactions with these non-Catalan (nor Spanish) speakers and in group meetings, English was the language used. English was also used by all group members for reading scientific articles.

Despite the general (implicit) norm of using English with non-Catalan/Spanish speakers, there were many instances observed in group meetings in which both English and Catalan were used even though a non-Catalan speaker was present. Although the main presentation in group meetings was in English, in derived discussions Catalan predominated, except for the interventions of Lola (Spanish L1), Dana (Bulgarian L1 – fluent Spanish speaker), Jetta (Dutch L1), Yamir (Tamil L1) and Tira (Tamil L1). Even projected texts in in-group oral presentations could be written in more than one language.

Pere (group leader) himself acknowledged that code switching used to happen in group meetings [see excerpt 12].

Excerpt 12: Interview with Pere (Group B's leader) [original in Catalan]

Pere: In the * Well_ this is perhaps something different\ Because in our group we sometimes start_ * and then we switch * we switch into Catalan_ we switch into Spanish_ and we say_ hey_ let's go back\

The common phenomenon of code switching was even described by some group members as a 'linguistic mess'. Despite the efforts made by group members to use English whenever this was the only common language for all interlocutors, Catalan was so present in the RG's daily communication that the two Indian members of the group, Tira and Yamir, regretted not having taken a Catalan language course since their arrival in the RG [see excerpt 13].

Excerpt 13: Interview with Tira and Yamir (PhD researcher – Group B) [original in English]

Researcher: So_ what piece of advice would you give to someone who has just arrived in [the city] and in the lab_ like for instance_ like you/ @@@ I don't know_ to make things easier_ or_

Yamir: Better to go for some courses\ Language course\

Researcher: Language course/ Do you think it's important/

Yamir: It's important\ (...) And I think they can enjoy a lot more\ (...) Yeah\ I enjoyed a lot here\ But if I would have known the language_ I would have enjoyed more than this\

(...)

Tira: Yeah\ Because by the beginning_ I didn't know that this is that much important to have a_ language for the communication_ but the time I was_ like I came to lab_ and going home_ I didn't interact much with the people\ But if I learnt the language before_ no/ It would be more im& +uh+ like_ useful for me\ (...) Sometimes also when they * when we have a meeting_ they use to discuss in the Catalan\ Or if it is very serious_ it comes automatically\ And it's common for everyone\

(...)

Researcher: ...and so_ first piece of advice_ take a language course\ In Catalan/ Or Spanish/

Yamir: Catalan is more important\

For Yamir and Tira, competence in Catalan gives access to the local community and consequently to opportunities to 'enjoy' their stay in Catalonia 'more'. The presence of Catalan in their environment seemed to have raised their awareness of this language and increased the importance they assigned to it. Despite the flexibility concerning language choice in the RG, Pere deemed English 'fundamental' in science given that the scientific publications necessary in their profession are 'in English' [see excerpt 14].

Excerpt 14: Interview with Pere (Group B's leader) [original in Catalan]

Researcher 2: And hence_ if I want to be your doctoral student_ and I come_ for example_ but I have no idea of English\ You will accept me anyway if you see that I_ * if I have a good record\

(...)

Pere: Well * then we'll be in that situation_ I'll tell her_ listen_ devote a few hours a week to English learning\ (...) It's fundamental\

Researcher 1: But they don't use it that much at first\ Only when they go to conferences_

Pere: Yes\ No\ No\ Sure\ But * but * the * the first & the * the * the * first reading they will do will be of a {(Eng) paper} in English\ And th& the * and the articles that you will give them_ even though you can explain those to them_ you will give them what you have published and it's English\ Therefore_

In contrast with scientific articles, in Group B PhD dissertations were 'usually' written 'in Catalan'. Only a minority of researchers who wanted to opt for the 'European doctor-

ate' mention⁶ would write their dissertation in English [see excerpt 15].

Excerpt 15: Interview with Pere (Group B's leader) [original in Catalan]

Researcher 1: And the thesis_ in contrast_ They are the ones who write it_ right/

Pere: +Uh+ Yes\ Yes\ Yes\ It has * I mean_ they have to do so\

Researcher 1: And do they do it in English/ Or do they do it in Catalan/

Pere: +Uh...+ well_ usually_ Catalan_ and some in English\

Researcher 1: +Oh+ but they are not forced to do it in English\

Pere: No\ Unless they want the * this European doctorate_ and * that at least the thesis must be written in English_ and part of the presentation must be done in English_ because you are supposed to bring someone from outside who does not speak Catalan\ Nor Spanish\

Researcher 1: But this option does not predominate\

Pere: It doesn't\ It doesn't\

It is worth noting that, in the case of Group B, scientific article drafts were also reviewed by other group members, sometimes in a triple revision system. For example, a PhD researcher would send the draft to her immediate supervisor, then to the group leader, and finally to a scientific writer, Audrey, who was from the US, for the last linguistic revision.

6. Discussion

The data analysis has revealed that both RGs had a differently oriented language management. Such management was highly influenced in turn by the group leaders' linguistic repertoire and beliefs. Group A's language management corresponded with a market-oriented stance or "utilitarian view" (López-Navarro et al., 2015: 964) seeking international competitiveness. This language management embraced the supremacy of English as the language of science, irrespective of university or national policies claiming for the protection of local languages. Using English was perceived by group leaders as the most efficient strategy, for it facilitated access to a broader market of funding agents and of audiences, consistent with Duszak & Lewkowicz (2008) and Englander (2009).

In contrast, Group B's language policy was characterized by a Catalan-English 'diglossia' (Ferguson, 1959). Its management consisted in an in-group 'laissez-faire' norm combined with an out-group communication in English. Ferguson (2007: 7) cautions us about the risk of "an incipient global diglossia" as regards the prevalent use of English for scientific communication. The same term has been used by other authors (i.e. Calaresu, 2011; Gunnarsson, 2001; Ljosland, 2007) with reference to the different roles and prestige of English and other languages in different European contexts.

Without group members' explicit awareness, and without the university's implication or support, the RG's language management based on a 'laissez-faire' norm facilitated the coincidence of its language practices with the scenario drawn by the Catalan Law (Law 1/2003, of February 19, of universities of Catalonia), which urges for an international university where the "language" "of Catalonia" – meaning Catalan – be present. Group B's stance was based on

⁶ The 'European doctorate' is a distinction granted by the European Union (EU) to doctoral researchers that have fulfilled certain requirements, of which some involve language: A part of the doctoral dissertation must be written in an official language of the EU other than the official languages of Spain; two experts from a higher education institution from a member state of the EU other than Spain must evaluate the dissertation (and they must hence be able to read it in its original language); the examination panel of the PhD defence must contain at least one expert belonging to a HE institution from a member state of the EU other than Spain (who must understand the language used in the defence). Real Decreto 56/2005, de 21 de enero, por el que se regulan los estudios universitarios oficiales de Posgrado (Art. 14). <https://www.boe.es/buscar/doc.php?id=BOE-A-2005-1256>

its contribution, anchored in the local context, to an international scientific field that to its members seemed to be alien and remote. The international dimension seemed not to be present in Group B's daily communication but to penetrate that local dimension in few specific instances. This is consistent with the dominant discourses coming from the EU and European national governments that recurrently underscore a (European) locality distinct from the global field or "market", like those intending to promote the European Research Area (i.e. EC, 2016; MEC, 2012). This fragmentation of the scientific space into different spaces (international, European and national) suggests the need for RGs to adopt different strategies (and to use different languages) in each space, which might become an added burden to their daily practices.

The English-only rule enforced in Group A fostered nation-state language ideologies of foreign group members and consequently favored the learning of Spanish, whereas the 'laissez-faire' norm in Group B raised minority language ideologies and triggered the will to learn Catalan by foreign group members. The greater presence of Catalan in Group B, legitimized also by its use by the group leader and other senior members, seems to have acted as a better facilitator of positive attitudes towards this language than the lower presence of this language in Group A, combined with the disdain of the group leader and senior researchers towards it, and with its perceived imposition by the institution.

Despite their specificities, though, both RGs coincided in two aspects: in the use of English in productions targeting out-group audiences (i.e. in the reading and writing of scientific papers, and in oral presentations in conferences), aligning with the view that international communication, success in science and the use of English are interwoven (Alastrué & Pérez-Llantada, 2015), as well as in their reliance on an 'English native' as a proofreader to look over their written outcomes. Indeed, this is a widespread practice among (semi-)peripheral researchers (Duszak & Lewkowicz, 2008; Ventola & Mauranen, 1991). Yet, it is a debated issue in the literature, having its supporters, who claim for the need to accommodate to the native ideal in order to avoid comprehension problems (Barbour, 2002), and its detractors, who defend the legitimacy to contribute to an international English from all linguistic perspectives (Ammon, 2000). Researchers may not however be able to choose freely either of the two positions, because their practice is contingent upon journal editors' and reviewers' criteria. In this line, the group leaders' decision to rely on a 'native' might be due to different possible reasons. It might arise from their own linguistic ideologies –in line with Bardi & Muresan's (2014) participants: Romanian researchers who believe that English native researchers can achieve higher linguistic refinement in their publications. It might stem from their ignorance of research demonstrating that nativeness is not favored by journal editors (Flowerdew, 2001). Or it might be due to their own past "experiences of marginalization" (Minakova & Canagarajah, 2020: 12) in the academia –whereby they might have experienced English as a barrier to access certain academic networks, or they might even have received negative comments about their English language proficiency (i.e. by journal reviewers).

In both cases studied, the RG's language management had both positive and negative effects on the practices of group members, like contributing to the development of their foreign language skills or generating tensions when the local language was used. Participants had to choose individually whether or not to adhere to a stance focused on an international 'frame of reference' (Allport, 1940), so that they are focused on and ready for their prospective international mobility – very common for researchers (Bernstein et al., 2014). Yet, they might be urged to do so by their RG's language management, as was the case in Group A.

Concerning the languages used in each RG and their roles, our findings resonate with, but at the same time differ slightly from,

Vila et al.'s (2012) findings. The domination of Spanish and Catalan in interpersonal communication within the Scientific Park of Barcelona coincides with Group B's language practice (except for the prevalence of Catalan in Group B) but not with that of Group A, where English predominated. The relevance of the proportions of speakers of each language as a determining factor of the languages used has been suggested by Bretxa et al. (2016). But in Group A other determining factors could be inferred from the data, such as the RG's language management and researchers' adopted frame of reference.

The role of English as the language for international communication, that is, being used in conferences and written publications (Vila et al., 2012), is also consistent with findings in the current study, for both RGs. With reference to Spanish, although some researchers of foreign origin preferred to learn Spanish rather than Catalan, coinciding with Vila et al.'s (2012) findings, the predominance of English in Group A and of Catalan in Group B may have discouraged some others to learn neither Catalan nor Spanish and encouraged them to stick to English (although in the end Tira and Yamir regretted not having learnt Catalan). Our findings also align with the multilingual practices identified by Mondada (2005) and Melo-Pfeifer (2020), as well as by research on multilingual practices in the workplace (Angouri & Miglbauer, 2014), but it is worth noting that different languages are attributed different roles and prestige within the RG. Also, Group A's language policy demonstrates that English is penetrating domains and roles previously dominated by other (local) languages (like in-group emailing and spontaneous interactions in the laboratory), thus resulting in 'domain loss' by these local languages (see Haberland, 2005).

Within an institutional context cluttered with ambiguities and contradictions as regards how the Europeanization and the internationalization of research should be undertaken, and neglecting field actions and instructions on how these can match the preservation of local languages like Catalan, the RGs studied found themselves in an undetermined space, between locality and internationality. They had to implement themselves improvised strategies to deal with that position. Despite the Catalan Law's (Law 1/2003, of February 19, of universities of Catalonia) claim for "well-defined policies and strategies" concerning the quality of research and student mobility in the context of the internationalization of university, there was an evident lack of guidelines and training for practitioners in this respect. This urged group leaders to take on a language policymaker role (being in charge of the language management of the RG), while they were ignorant of the actions that could potentially entail "excellence" and "success" in this respect. General university actions like offering free Catalan language courses for foreign students have proved inadequate for the 'international' researchers in this study. Apart from Lola (Spanish L1-Group B), who had learnt some Catalan to communicate with a Catalan colleague, and Vince (French L1-Group A), who was fluent in Catalan and used it in his university lectures, other foreign researchers did not perceive Catalan as rewarding nor necessary in their career, and most of them deemed it an added obstacle in their way towards success in science. Even those foreign researchers who declared that Catalan was important (Hao, Tira and Yamir) did not engage themselves in learning the language.

Moreover, participants seemed alien to any potential political or cultural implications of their language practices. The claim that the internationalization of HE in Spain emanates from an 'underdeveloped planning' (Rumley, 2012) becomes here evident as regards language policy at postgraduate levels. As in Mortensen (2014), the two RGs followed a 'local de facto language policy'. Yet, in this case, apart from the two levels of language policy identified by this author: 'from above' –corresponding with Spolsky's (2004) *management*– and 'from below' –corresponding with language *practices*–, two more levels or intervening forces

can be distinguished. Between the practitioners' practices and the institutional management (of the university and of regional and national governments), there is a middle-level *de facto* management that has proven very influential on researchers' daily language practices: the management of the group leader. Also, the imposition of English as the unquestionable language of out-group communication denotes the existence of a fourth level of language management, parallel to and more powerful than the institutional one, that is the language management of globalization, which imposes English as the *lingua franca* of global science (Tardy, 2004).

Our findings support the thesis that in a context in which English is the dominant global language, incentivizing international communication (i.e. in international conferences, international projects, etc.), far from being ideologically neutral, may imply incentivizing the use of English. This is evidenced in the two cases studied, in which other languages were relegated to informal internal communication (mainly orally or through email), and in the case of the internationally-oriented RG, Group A, their use was very limited. The international dimension was thus integrated in the local language policy. Furthermore, the trend of international mobility may encourage researchers' most efficient language learning strategy, which we have named the *capitalization of language learning*. According to it, they may intend to capitalize their language learning efforts by learning the language with the largest number of speakers or most geographically spread among those languages found in their (imagined) environment. We underscore the notion of it being 'imagined' since it might not correspond with the actual sociolinguistic environment but to their perception of it mediated by their ideologies. Accordingly, researchers may take the nation-state in which they are working as a "frame of reference" (Allport, 1940) and learn its official national language despite having other (regional) languages more present in their immediate milieu. These findings coincide with Flubacher et al.'s (2018) argument that people's linguistic decisions are strongly influenced by their life projects such as job seeking. Language learning and use may thus be the result of researchers' strategy of identity construction and capital acquisition whereby whatever is not convertible into other types of capital (see Bourdieu, 1977) is not valuable nor worth investing in. And considering the current dynamics of the internationalization of HE and of science, the future of minority languages appears to be jeopardized. If the international frame of reference is imposed in all scientific fields, researchers' international mobility increases and these phenomena go hand in hand with the improvement of English language skills by university students and consequently by future researchers, English may become the only language of scientific practice, and only majority and national languages (i.e. Spanish rather than Catalan or Aranese Occitan) may be learnt by international researchers to be used in non-scientific communication.

7. Conclusion

In line with the literature, our findings suggest that the lack of specific policies, of strategies and of actions regarding the transition towards an international university results in the imposition of the English language in HE. Consequently, peripheral and semi-peripheral regions might have their languages displaced. In this regard, specific long-term strategies are needed from policymakers in peripheral and semi-peripheral HE institutions, who should decide actively and purposely what the role of each language should be, as well as the design of concrete actions to achieve the desired goals.

In the case of the RGs studied, the university's language management was very limited and superficial, and seemed to have been developed regardless of the actual language practices of its researchers. This could be avoided with proper guidelines and sup-

port, as well as with an informed language management that considers the practitioners' needs and beliefs (i.e. if publishing in English results in greater impact, it may be preferred; if Catalan is not perceived as an asset but as a burden, it may be disdained, whatever language policy documents state). Also, strategies and planned practices that lead this transition are required so that the responsibility is not given to group leaders and researchers themselves, who are not language specialists nor are they trained accordingly. For instance, the creation of the position of the internationalization expert, acting in the level in-between the institution's management and researchers' practices could potentially solve some tensions by determining the role of languages other than English in the RG. Also, training and guiding group leaders on these issues could have positive outcomes. Concentrating efforts on these mid-level agents may be an effective strategy given the relevance and high impact of these agents in the definition of legitimacy and authority in the daily practices of researchers.

At the same time, the practices carried out by the institution in which the RGs were based with the aim to promote Catalan, like the imposition of Catalan language lessons together with Spanish lessons, proved to be inadequate and even potentially counter-productive, and should be reconsidered. Soler and Gallego-Balsà (2019) suggest that actions intended to promote positive attitudes towards Catalan are required instead of actions imposing the learning of the language to newcomers. According to our findings, two such actions may be: increasing the presence of the minority language in practitioners' environment and hence their exposure to it in the context of the practice of research, and rousing positive attitudes and thus favorable discourses towards this language by group leaders. The competitive nature of researchers' practice confers high relevance to the indicators that measure success in science as determining also language choice (Kancewicz-Hoffman & Pölönen, 2020). Concerning two paramount indicators, publications and dissemination activities, measures have been proposed in the literature to foster the use of languages other than English. Measures affecting the language of publications are (1) valuing publications' content more than journal metrics, (2) giving higher value to publications in languages other than English in national project evaluations (Kulczycki et al., 2020), and (3) avoiding commercial indexing services (like Web of Science by Clarivate Analytics or Elsevier's Scopus) to evaluate research (Sivertsen, 2016). Initiatives that support multiple languages for research dissemination are: the European Reference Index for the Humanities (ERIH PLUS) (Norwegian Directorate for Higher Education & Skills, 2014), the Open Access in the ERA through scholarly communication (OPERAS, 2017) and the Helsinki Initiative on Multilingualism in Scholarly Communication (2019). These should be considered by semi-peripheral HE institutions that are truly committed to multilingualism.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix

Transcription conventions

@	Laughter	&	Unfinished word
.	Lengthening	*	Reformulation
/	Rising pitch movement	(...)	Omissions
\	Falling pitch movement	(Eng)	Words in English
_	Level pitch movement	[]	Added information
{}	Limits of clause affected	=	Overlapped utterance
+	Sound limit	X	Unintelligible utterances, approximating syllable number

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