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Research and scientific publication in French

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To members of the Standing Committee on Science and Research,

I am a full professor in the Faculty of Social Sciences as well as the Head of the Department of Sociology and the Director of the Observatoire démographique et statistique de l'espace francophone (ODSEF) at Université Laval. I am writing this brief as an individual, based on over 30 years of expertise I have developed in the field of scientific research. I have sat and continue to sit on several editorial boards of scientific journals and I served as the chair of one of these boards for seven years. I have also participated in several research assessment committees in Canada, Europe and Africa. Even though I had a limited amount of time to submit this brief, given the very tight deadline provided, I am pleased to be able to share a number of thoughts with you as well as my concluding recommendations. Please note that I have drawn from several pieces of my research work concerning challenges related to the dissemination of scientific knowledge in the social sciences and humanities and have used numerous excerpts from an article I published in Recherches sociographiques, in 2019, entitled "Deux solitudes ou One and a half? La langue des articles cités en bibliographie comme illustration des pratiques scientifiques en sciences humaines au Canada." Please consult this article for more information about my work, which I would not be able to explain in detail here, in the context of this short brief.

We know that the environment for producing knowledge in French has been beset with various tensions for over 20 years; these tensions have been the subject of discussion and debate in Quebec as well as in France and elsewhere (Larivière and Desrochers, 2015; Marcoux, 2015; Minon et al., 2015; North 2011).¹ These tensions can be attributed to three distinct elements which, together, could significantly impede advancement in the dissemination of scientific knowledge in French.

1. First, irrespective of language-related challenges, it is important to recognize that the publication of scientific articles on digital media has completely changed practices for disseminating content, and this remains true – obviously on a much broader scale – for the mainstream media and for what is referred to as the cultural industry. Quebec journals were therefore able to benefit from a wider readership by becoming accessible to the entire world (Marcoux, 2013). However, these journals were not the only beneficiaries of this development and also found themselves competing with other journals, notably those disseminated by major commercial publishers with significantly more resources in what is referred to as the scientific publishing market.

¹ Please listen to the round table discussion on "La science en français," which I participated in with Tanja Nieman and Yves Gingras during a broadcast of the Radio-Canada program "Les années Lumière," on March 20, 2016 (from the 19th minute): http://ici.radio-canada.ca/widgets/mediaconsole/medianet/7461764.

(Farchy and Froissart, 2010; Epron and Vitali-Rosati, 2018). It is therefore important to recognize that, while readership of our Quebec journals did, in fact, increase, this increased readership may nevertheless seem quite insignificant when compared with the increased readership of the major international scientific journals published in English, which derived even greater benefits from electronic dissemination to impose quasi-monopolies (Minon et al., 2015; Lemercier, 2015).

- 2. Moreover, these changes, which were primarily technological in nature, occurred at a time when research administrators were implementing follow up and assessment mechanisms that relied on the development of performance indicators (Wouters and Costas, 2012). Citation indexes are therefore driving researchers, laboratories and research teams to develop strategies to do well and ensure better scores (Gingras, 2014). This has resulted in various issues, which, in many fields, will often place journals concerning specific disciplines and basic research at great disadvantage, as we had already illustrated for the discipline of demography (Marcoux, 2013).
- 3. Lastly, all these tensions are also contending with the emerging issues of production and dissemination of knowledge in a particular language, i.e., English, which is being presented as the sole and exclusive language of science, an idea that has increasingly been imposed in recent years (Séguin, 2014; Héran 2013). Obviously, many are concerned about the negative effects of this trend towards monolingualism in the production of knowledge.

As professor Yves Gingras highlighted so well during his appearance before your committee, this anglicization of science appears to evolve differently depending on the scientific discipline. The situation in Quebec serves as a very good example:

There are significant differences in the publishing practices employed by researchers in various academic fields. In biomedical sciences and in natural sciences and engineering, close to 87% and 69% of researchers respectively do not publish any articles in Quebec. In social sciences and humanities and arts and literature, this proportion falls to almost 35% and 30%. However, these two academic fields also account for a much higher number of journals, i.e., close to 90% of all Quebec journals.

(Godin, 2002, p. 490) [TRANSLATION]

However, more recent academic work concerning the social sciences shows that English as the language of scientific publication has gained considerable ground in several fields of the social sciences and humanities in Canada, notably in political science (Rocher and Stockemer, 2017) and sociology (Warren, 2014).

In short, the combination of the three elements described above — dissemination via digital media, assessment-related challenges and anglicization of scientific research — leads to an astonishing paradox, as rightly pointed out by Vincent Larivière and Nadine Desrochers:

Even though the increased use of English to disseminate academic work in the social sciences and humanities via international journals could be attributable to a certain internationalization of studies in these fields, the fact that national journals are being anglicized instead suggests that this change in practice is due to this quest for visibility, indexation and citation, which is not incongruous to a certain idea of scientific excellence. We are therefore in danger of creating a ridiculous situation where, for research assessment purposes, researchers working in the social sciences and humanities would end up writing and reading about their society, their history, their economy or their political system through the lens of a foreign language. (Larivière and Desrochers, 2015) [TRANSLATION]

A study on producing and disseminating scientific knowledge in Canada would rightly facilitate the ability to compare the practices employed by researchers working in the social sciences and humanities who, in principle, work in different linguistic worlds. Indeed, given Canada's various scientific institutions, universities and English as well as French journals, Canada and Quebec offer a particularly interesting environment for identifying certain modus operandi and methods of information exchange within different scientific communities. Does the expression *Two Solitudes*, made popular in 1945 by Canadian novelist Hugh MacLennan, apply to the two scientific linguistic communities in Canada?

Who would you cite in your scientific publications? And in which language?

Publishing an article in a scientific review necessarily requires the author or authors to review what has been written and published about the research topic. In a way, this literature review is integrated into the evidentiary structure of any research process and helps to illustrate the original contribution or innovation of the published article (or submission), which is often summarized by the renowned expression "contribution to the advancement of knowledge:"

Initially we can say a review of the literature is important because without it you will not acquire an understanding of your topic, of what has already been done on it, how it has been researched, and what the key issues are. In your written project, you will be expected to show that you understand previous research on your topic. This amounts to show that you understood the main theories in the subject area and how they have been applied and developed, as well as the main criticisms that have academic development – of becoming an expert in the field. (Hart, 2008: p.1)

Obviously, depending not only on the topics covered, but also on the journals to which articles are submitted – and therefore the audiences of specific readers – authors will draw from existing literature in different ways. A review of the corpus of publications included in the bibliography of research work can therefore prove very telling of the practices of authors/researchers (Cossette, 2016).

The Social Sciences and Humanities Research Council (SSHRC) has often asked me to participate in various assessment committees and, in 2007, I participated in the Civilization and the Environment Committee responsible for evaluating scholarship applications from doctoral students at Canadian universities enrolled in the following fields: anthropology, sociology, geography, demography and political economics. As is still the case today, candidates applying to this SSHRC program were invited to attach a short description of their project to their application and include an appendix presenting a bibliography of scientific publications and literature related to their research project.

After noting the paucity of publications in French included in the research proposals of the young applicants from Canada's English universities, I was interested in delving beyond a mere initial impression and I therefore decided to conduct a systematic exercise that consisted of creating a database of the 366 competing applications, which identified the following information: the university of each applicant to the program; whether it was an anglophone or a francophone university; the geographic area concerned by the research project (continent, country/countries, provinces, etc.) and, lastly, the number of references in the bibliography, distinguishing English publications from French ones.²

The results clearly show that these new cohorts of Canadian doctoral students do not draw from the same bibliographical database resources to address the issues raised in their PhD dissertations. While the bibliographical appendices for submitted projects listed roughly 20 references, on average, irrespective of the type of university, there were, however, significant gaps in terms of the linguistic composition of these bibliographies: 50% of the bibliographical references submitted by applicants from Quebec's francophone universities were in French, while applications from Canadian universities outside Quebec included virtually zero bibliographical references in French. For the latter, as well as applicants interested in pursuing doctoral studies outside Canada, 99% of the bibliographical references appended to their research project were in English.

² A review of the 366 applications and the 6,314 bibliographical references revealed that publications in a language other than English and French were rarely provided (only five out of the total in this corpus).

A more detailed analysis shows that applicants from anglophone universities in Quebec did not do any better than applicants from universities elsewhere in Canada, with 97% of bibliographical references in English.

In short, my initial impression, as I was going through the applications to be reviewed was fully confirmed by this simple yet systematic exercise: while there is a near perfect balance between the two languages of publications provided in bibliographical appendices to projects presented by young PhD candidates studying humanities at Quebec's francophone universities, scientific literature in French is virtually absent from the reflection processes of young students in the social sciences and humanities at anglophone universities in Quebec and universities in Canada outside Quebec.

In fact, these younger generations are merely replicating the practices of their predecessors

In 1973, Guy Rocher wrote the following about the work of a sociologist in Canada:

In these two sociocultural worlds of sociology, I cannot help but see confirmation of the "hypothesis of two nations" that the Canadian government continues to reject ... there is this divide between two worlds of language and thought. And this divide is so deep that it separates two cultures and two societies. Irrespective of any political concept and irrespective of any uncertainty surrounding the future of Canada and Quebec, I believe that, in the interest of the future of sociology ... both English-speaking and French-speaking sociologists must make a special effort to eliminate or at least lower the wall of silence that separates them. (Rocher, 1973: 239) [TRANSLATION]

What has happened 50 years later? A review of over 15 years of articles (2000–2016) published in two Canadian scientific journals that focus on the same field of social science and publish in two different languages — one in English, one in French — allows us to confirm our earlier observation: there are, in fact, very different research practices among researchers in the humanities, depending on whether they come from the anglophone space or the francophone space in Canada and Quebec. We noted that, in the documentary research to support arguments made in the articles published in the two journals, researchers relied on different bibliographical references, at least with respect to the language of publication of this second corpus.³

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³ The corpus is made up of some 17,000 bibliographical references from 500 articles published in both journals between 2000 and 2016.

The authors of the French-language journal in Quebec offered fairly balanced bibliographies vis-à-vis the language of publication (roughly 50% in French and the rest in English). These bibliographies include a higher proportion of French references when research topics concern societies within the francophone space, but still include bibliographical references in English. Authors affiliated with non-francophone institutions who published in the Canadian English-language journal fail to do any better than the young aspiring PhD students: only 1.2 % of bibliographical references for the articles that they wrote were in French.

The examples illustrated here show that two separate processes are developing within the linguistic spaces of journals and researchers, whether young or older, in Canada and Quebec. On the one hand, there are the researchers affiliated with francophone institutions who draw extensively from scientific publications in English. On the other hand, there are the researchers at anglophone institutions who ignore scientific publications in French.

François Rocher (2007) reviewed over 80 scientific references on Canadian policy and reached a similar conclusion about the absence of references produced by francophones in Canada.

As was suspected from the beginning, the production and the reproduction of knowledge, from introductory textbooks to specialized studies, ignore an important portion of scholarly works. In a certain way, this situation is analogous to with the phenomenon of systemic discrimination ... (Rocher, 2007, p.849)

In short, we are not quite contending with two solitudes, since authors in one of the two linguistic groups appear to generally account for scientific research work from the other linguistic group without the converse being noted. This latter finding concerning the practices of researchers in English-speaking Canada reflects the observations noted by observers in the United Kingdom, which also led the administration of the prestigious British Academy to publish an important policy opinion in 2009, entitled *Language Matters*. A Position Paper.

In the social sciences, comparative studies and cross-national work in subjects such as politics, sociology and development economics requires knowledge of other languages. And researchers in all disciplines (including the natural sciences) need skills in spoken as well as written languages in order to take up and make the most of opportunities to study and work overseas, or collaborate with overseas partners. With the increasing development in collaborative work and the large sums of money attached to such work by national and international agencies, lack of language skills inflicts a real handicap on scholars in many parts of the British university system and therefore weakens the competitive capacity of the system itself. (British Academy, 2009, p.3)

The authors of this opinion also highlighted the risks that this situation presented for the future of British science:

It has been observed that if 'the research base' of UK younger educated researchers in the humanities and social sciences is increasingly monoglot in character, it runs the risk of being marginalized, and will end up, as it were, world-famous only in England. (British Academy, 2009, p.5)

We are therefore facing a new paradox here in Canada. On the one hand, there is unilingualism in the practices employed in English-speaking scientific communities, which seems worrisome to some, at least to those at a prestigious British scientific institution, as explained above. On the other hand, there is a scientific publication market that places French publications at a disadvantage and is thereby prolonging administrative practices that promote academics and funding of research teams, which, in turn, strongly encourage francophone scientists to publish in English and only in English!

Some still ask questions about the asymmetrical nature of our two official languages. There is no doubt that this asymmetry is a reality in the world of science in Canada and poses major challenges that present an opportunity to make a number of recommendations:

- Immediately provide better support to French scientific journals. In Canada, dissemination of knowledge in French relies primarily on the work of creators of French research journals. For a number of years now, the very existence of many of these journals has been threatened due to a lack of adequate funding and/or following unfortunate budget cuts (Marcoux, 2015). Funding provided to the small number of Canadian programs available to support academic journals should be promptly increased so that they can better support these French journals.
- Encourage recognition of scientific publication in French. Researchers should not be prevented from publishing in English in any way whatsoever; however, various Canadian competitions (awards, subsidies, etc.) should include criteria for evaluating researchers and research groups that would recognize their contributions to the dissemination of knowledge in French.
- Ensure appropriate expertise to assess French applications. The situation in Canada, as
 described above, means that assessment mechanisms fail to rely on appropriate
 expertise to adequately assess the scientific quality of French journals. This situation
 must be corrected.

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