UQAR

Université du Québec à Rimouski

Brief on Research and Scientific Publication in French

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INTRODUCTION

The Université du Québec à Rimouski (UQAR) is located in a large area in Eastern Quebec and has nearly 6,700 students and 231 faculty. Research is conducted in fields such as health sciences, literature and humanities, natural sciences, engineering and social sciences.

UQAR stands out for its research activities among comparable universities elsewhere in Canada. In 2021, UQAR was named Canada's Research University of the Year in its category by the firm Research Infosource. Since 2011, it has placed in the top three positions of the firm's ranking nine times, including three times at the top, which attests to the quality of the research conducted by its professors.

The research conducted every year at UQAR is strongly rooted in the communities it serves. Its areas of research excellence — nordicity, marine sciences and regional development — reflect this uniqueness. Similarly, research in engineering, education, literature, history and heritage, management sciences and health sciences, all of which have been growing rapidly in recent years, are firmly entrenched in the culture, needs and characteristics of the regions served by UQAR.

As a francophone university, UQAR is directly involved in the Standing Committee on Science and Research's current study on research and scientific publication in French. In this brief, we present a few observations and recommendations.

OBSERVATIONS

The dominance of English in the production and dissemination of scientific research is well documented, and we will not go into detail on the findings already made by researchers and organizations specializing in the issue (Bacaër, 2019; Gingras, 2002; Hamel, 2007, 2013; St-Onge et al., 2021). In 2021, Acfas published a report that clearly documents the challenges of francophone research in minority communities, and many of its findings also apply to Quebec and therefore affect UQAR.

Although the phenomenon is particularly pronounced in the natural sciences, it extends to all fields and affects all francophone scientific communities around the world. In Canada, French is in decline throughout the research system. A growing number of researchers are submitting their **grant applications** in English (St-Onge et al., 2021). The percentage of applications submitted in French to federal granting agencies varies between 5% and 12%.[1] These numbers have been declining since the mid-1990s in the health and social sciences and in the arts and humanities. In the natural sciences, they have stagnated at 10% since the same period. Furthermore, there is evidence that in some fields, such as health, success rates in research grant competitions are higher for applications submitted in English (St-Onge et al., 2021).

Publications in French account for a small portion of the scientific corpus at the international level (St-Onge et al., 2021). The number of **French-language scholarly journals** is steadily decreasing, as many have anglicized their names and limited the possibility of publishing in French (Bacaër 2019; Gingras, 2002). Since the mid-1990s, French-language journals have accounted for only 8% of Canadian scholarly journals (17% have been bilingual) (St-Onge et al., 2021). In the natural sciences and engineering, as well as in health, there are practically no opportunities for publishing research findings in French.

[1] https://www.acfas.ca/sites/default/files/documents_utiles/chiffres_rapport_final.pdf [AVAILABLE IN FRENCH ONLY]

As a country with two official languages that promotes equity and diversity, Canada should be particularly attentive to fostering the plurality of languages in the research system it supports.

The reality of researchers and universities located in francophone communities needs to be recognized in order to ensure that the production and dissemination of knowledge in French does not hinder the development and influence of scientific careers and work.

A number of factors contribute to the predominance of English in the scientific community, including the need for researchers to promote the findings of their work and the mechanisms for reviewing research. These factors negatively influence the visibility of scientific work published in French and, in turn, the recognition of francophone researchers.

Quantitative research review methods are based on the scope of publications (Gingras, 2015). The impact factor (IF), a measure used to assess the quality and impact of a journal article, depends on how often an article is cited; it is therefore influenced by the language of publication, the research discipline and the visibility of the journal or article. The higher the IF of a journal or article, the more the journal or article is considered to be of high quality and influential.

The language in which a scientific article is published therefore has a significant influence on its impact factor, as it determines the number of readers reached and, as a result, the visibility and recognition of the scientific work. In order to be read and cited by their peers and to ensure that their bibliometric performance is competitive, scientists are often encouraged to publish in English, in journals with high visibility (Gingras, 2015; Warren and Larivière, 2018). Imbeau and Ouimet show that "the language of publication appears to have a systematic impact on researchers' performance measures. Those who publish primarily in French publish less and are cited less often than others." (2013, p. 39) [translation] Moreover, the most frequently used databases are less comprehensive in their coverage of French-language literature; only Google Scholar is said to be effective in identifying French-language work (Imbeau and Ouimet, 2012).

The publication language's influence on the visibility and review of scientific work affects the chances of success in competitions held by funding agencies, a source of funding that is critical to producing and disseminating new scientific knowledge. This success depends largely on project reviews.

When the IF is used directly or indirectly (e.g., by a reviewer who wants to form an opinion about researchers) to review grant applications, it leads to bias and distortion and can interfere with the consideration of many other important factors, such as the quality of the scientific content, the relevance of the research to the field in question and the actual impact of the research on society. Using the IF in this manner puts researchers who publish their research findings in French at a disadvantage.

In addition, given the large number of grant applications that must be reviewed annually across the country and the need for independent reviewers, international experts are asked to participate in many research grant competitions. In this context, there is no need to reiterate that, on a global scale, the law of numbers makes it easier to recruit English-speaking reviewers. However, according to the information we received, the language skills of federal grant reviewers are determined by a self-assessment,[2] which poses a real problem in that their command of the French language cannot be determined objectively. In this regard, it is important to remember that there is a big difference between having a basic

[2] https://www.acfas.ca/publications/magazine/2021/11/ce-que-disent-autres-etudes [AVAILABLE IN FRENCH ONLY]

understanding of a text and having the depth required to understand its subtleties. In the world of research, where precision and accuracy are fundamental, subtleties cannot be ignored.

Furthermore, for applicants who are not fluent in English, it may be more difficult to make themselves understood and to convince the review committee of the quality of their work. Even when the application is submitted in English, the quality of the language used in the application may work against them. Also, the cultural dimension of a research project or a publication is more difficult to convey when the language used is not fully mastered.

In short, **the quality and significance of the proposed research are key factors in reviewing grant applications. However, they cannot be properly reviewed if the proposed projects are not fully understood because of a language barrier.**

All of these factors encourage francophone researchers to submit funding applications in English in the hope of improving their chances of success in competitions held by granting councils.[3]

Indirect and invisible costs for the francophone scientific community

The pressure to apply for grants or to publish in English weighs on francophone scientists in many ways. One of the concerning aspects of this situation is the increased workload and associated costs. Applying for grants and publishing and disseminating their work at English-language scientific events requires a significant additional investment of time, money and energy for francophone researchers (St-Onge et al., 2021). It has been shown, for example, that scientists whose primary language is English generally publish articles more quickly and more easily in a style suitable for English-language journals (Hamel, 2007).

In small and medium-sized universities located in the regions, these unfavourable factors are coupled with another reality that we have already mentioned in a previous brief submitted to the Standing Committee on Science and Research.[4] A professor working in this type of institution generally has a heavier teaching load, due in part to the greater number and variety of courses taught each year. The time available to perform tasks associated with research management and dissemination (including translation) is more limited in this context. In addition, small and medium-sized universities have less financial capacity. They therefore do not have the resources to provide all the necessary support to professors who want to have their work or grant applications translated into English.

This is the reality facing UQAR researchers. Much of their research focuses on phenomena specific to the local populations and regions. In education, forestry, social sciences, management, biology, engineering and many other disciplines, researchers work with local partners on specific issues, and their research findings directly benefit these communities. All of this work is done in French. Without a particular investment on the part of these scientists to translate their work and publish it according to the standards required by high-impact journals, which are generally in English, their work does not achieve the same reach as that of their anglophone colleagues. Yet, the social impact of their work is no less important.

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[3] Ibid.

[4] https://www.ourcommons.ca/Content/Committee/441/SRSR/Brief/BR11712583/br-external/UniversitéDuQuébecARimouski-f.pdf [AVAILABLE IN FRENCH ONLY]

WHY PROMOTE SCIENTIFIC RESEARCH IN FRENCH IN CANADA?

Toward greater appropriation of scientific research: a question of the language of dissemination

Scientific research is key to understanding our world, understanding societal changes and solving the challenges we face. Developments in recent years (social media, the Internet and the proliferation of sources of information and misinformation, political polarization, the pandemic, etc.) show that science plays an increasingly important role in public action and in the lives of individuals, and remind us of the importance of the role of scientists and the governments that support them.

Scientific culture is fundamental to a democratic society. Putting scientific work into practice is therefore necessary for informed decision-making in all areas of public action, from citizen initiatives and municipal issues all the way to international politics. Understanding the scientific process and its findings is essential for engaging in a rapidly changing world.

As public actors (government and university), we must ensure that scientific knowledge is a primary source of information for everyone. Science allows us to better understand the complex problems of the real world, and its findings must also benefit francophone communities. The accessibility of these findings determines whether they can be used to advance knowledge and help solve real-world problems. The use of research findings and the appropriation of knowledge by the greatest number of people can only be achieved through better knowledge flow, which in turn depends largely on the language in which scientific work is conducted and disseminated.

Scientific research, especially publicly funded research, must therefore be accessible and benefit all communities, including francophones.

Encouraging the diversity of perspectives

"In science, language is not neutral and is not merely a communication tool. It influences the choice of issues, the way they are approached and the relevance of researchers in relation to their community."[5] François-Olivier Dorais [translation]

The language in which researchers produce knowledge has an impact on the content of the research and on its dissemination.[6] Research conducted in English addresses issues that may not be appropriate in a francophone context, and francophone researchers are more likely to study phenomena specific to their own language community, especially when conducting their research at a regional university. Researchers from francophone communities who wish to study realities specific to these communities should not be penalized for their choices. At UQAR, for example, some of the research is related to the realities of the regions served by the university.

Lastly, it should be emphasized that linguistic and cultural diversity is a strength for the scientific community and that it is important to promote inclusion and diversity in the research world. Language is not a neutral medium; it has a history and a cultural background and conveys unique world views

[5] https://www.acfas.ca/publications/magazine/2022/06/emergence-science-francais-au-canada-vue-affaires-universitaires [AVAILABLE IN FRENCH ONLY]
[6] https://lactualite.com/sante-et-science/peut-on-encore-faire-de-la-science-en-francais [AVAILABLE IN FRENCH ONLY]

(Usunier, 2012). By allowing more people to participate in research using their mother tongue, we can expand the available knowledge base and encourage the diversity of perspectives in research.

RECOMMENDATIONS

In light of the above, it is essential to give French a more prominent role in science. The government must support the vitality of science in French in Canada and help expand the influence of the francophone scientific and academic community.

Accessibility of research findings

- Increase the visibility and recognition of francophone research in the international scientific world by implementing a program to support bilingualism in the dissemination of research findings in order to contribute to the dissemination of scientific knowledge in countries where French is the primary language, help make research findings more accessible to the francophone public and make the findings of research conducted in French available to anglophone communities.
- Improve the flow and accessibility of research findings by creating a program to support bilingualism in scientific events.

Support for scientific publications in French

- Significantly increase financial support for Canadian French-language scholarly journals and Canadian French-language open access platforms.
- Implement mechanisms to support the publication of French and English versions of articles in the same journal.

Review mechanisms and grants

The quality of the proposed research and its relevance to the field of research in question are critical factors in reviewing research, and francophone researchers who choose to submit their grant applications in English should not be subject to negative language bias.

- Ensure that the percentage of funded projects written in French is not smaller than the proportion of grant applications submitted in French.
- Include a requirement in the constitution standards for granting agency review committees that all committee members who participate in peer review committees reviewing applications submitted in French understand written and oral French.
- Objectively assess the language skills of research reviewers.
- Eliminate direct and indirect consideration of the impact factor in reviews.

REFERENCES

- Bacaër, N. (2019). Quelques aspects de la disparition du français dans la recherche scientifique. *FIU Francophonie et innovation à l'université*, 1, 16–27.

- Gingras, Y. (2015). Dérives et effets pervers de l'évaluation quantitative de la recherche: sur les mauvais usages de la bibliométrie. Recherche en soins infirmiers, (2), 72–78.

- Gingras, Y. (2002). Les formes spécifiques de l'internationalité du champ scientifique. *Actes de la recherche en sciences sociales*, 141–142(1), 31.

- Hamel, R. E. (2007). The dominance of English in the international scientific periodical literature and the future of language use in science. *AILA Review*, 20 (1), 53–71.

- Hamel, R. E. (2013). L'anglais, langue unique pour les sciences? Le rôle des modèles plurilingues dans la recherche, la communication scientifique et l'enseignement supérieur. *Synergies Europe*, (8), 53–66.

- Imbeau, L. M. & Ouimet, M. (2012). Langue de publication et performance en recherche : publier en français a-t-il un impact sur les performances bibliométriques des chercheurs francophones en science politique ? *Politique et Sociétés*, 31(3), 39–65.

- Larivière, V. and Riddles, A. Langue de diffusion des connaissances : quelle place reste-t-il pour le français? Chronique de l'ACFAS. https://www.acfas.ca/publications/magazine/2021/11/langues-diffusion-connaissances-quelle-place-reste-t-il-francais#:~:text=En%20conclusion,que%20de%20celle%20des%20publications.

- Usunier, J. C. (2012). Langue et équivalence conceptuelle en management interculturel. AEGIS le Libellio, 6(2), 3–25.

- St-Onge, S., Forgues, É., Larivière, V., Riddles, A., & Volkanova, V. (2021). Portrait et défis de la recherche en français en contexte minoritaire au Canada. *ACFAS*. https://www.ost.uqam. ca/en/publications/portrait-et-defis-de-la-recherche-en-francais-en-contexte-minoritaire-au-canada

- Warren, J. P., & Larivière, V. (2018). La diffusion des connaissances en langue française en sciences humaines et sociales. Les défis du nouvel environnement international. Recherches sociographiques, 59(3), 327–337.