

Introduction

The catastrophic view of population aging is no news. France, the first country to progress into the first demographic transition, had demographers more than a century ago already expressing their fear of a change in population age structure. The paranoia surrounding population aging seems to continue to this day (e.g. Hauser and Weir, 2011 ; Lee and al., 2010), fueled by fears of economic collapse, extreme financial and workforce pressure on healthcare systems, fast emptying of retirement funds and the absence of social structures in fast aging developing nations. Will societies drown in the silver tsunami?

Rationale

Consistent with Weber's symbolic interaction theory, it is likely that members of a group to which such a catastrophic language is associated might feel to be a burden for their society. Language is a strong institution, and the words we use to write about such a phenomenon are not without an impact on the way the readers subconsciously form a mental image about it. Older people also define their role in society in part directly through what they read, and indirectly through what others read and through discussions based upon those readings. Most older people, though, are not readers of the academic literature and might not be aware of all the population aging challenges raised by this -theoretically nuanced- literature. But what about the message carried by the media?

Methods

To answer this research question, we are doing a text analysis on a corpus of about 318 digital news article and blog posts published in the summer of 2019 from many regions of the world. The corpus has been assembled using *Google Alert*, providing us each day with articles including multiword expressions like *Population Aging, Aging Society and Ageing Population*. Similar expressions in French were also considered, the issue of population aging being largely discussed in this language as well.

Using the PACTE text annotation platform (Ménard and Barrière, 2017), five bilingual annotators are going through the selected articles. Each time an expression about population aging comes up, the annotator specifies if the context surrounding it suggests a positive, negative or neutral feeling (polarity). A terminological analysis is then made to assess what is the vocabulary that is mostly associated with each polarity and idiom.

Finally, statistical analysis will be made to see if the dominant polarity in different regions of the world is correlated to the actual and projected population aging.

Corpus description

Most of the collected articles are in English, making up 93.1% of the corpus. Also, 46.6% are written about North American (USA, Canada and Québec) population aging, 33.8% about Asia's (mostly Japan, China and South Korea), and 15.8% about Europe's (mainly France, UK and eastern Europe) while the rest (3.8%) covers a more global approach of population aging. Finally, most articles (84.5%) come from digital version of newspapers (e.g. The Japan Times, Wall Street Journal, 24Heures), the rest being blog posts (e.g. Brookings, Project Syndicate), magazine articles and websites.

Conclusion

So, is population aging portrayed as a problem, a challenge or an opportunity? Is there any difference in French vs the English media? Media from different regions of the world? Answering these questions are just but the first steps of a larger text analysis project on the topic of population aging. The work of the annotators is crucial to help train an AI model which purpose will be to collect articles (past and current, in the digital media and academic journals) about population aging and analyse their polarity and vocabulary with minimal human input.

References

HAUSER, R. M. and D. WEIR. 2011. « Longitudinal Studies of Aging in the United States », *EurAmerica*, 41, 1 : 87-179.

LEE, R., A. MASON and D. COTLEAR. 2010. « Some economic consequences of global aging », *Health, Nutrition and Population Discussion Paper. Washington, DC: The World Bank*

[MÉNARD, P. A.](#) and BARRIÈRE, C. 2017. "PACTE: a collaborative platform for textual annotation", 12th International Conference on Computational Semantics (IWCS 2017). Montpellier, France.

<http://pacte.crim.ca/>