



International Conference *Specialized Languages in Teaching and Translation: Theory and Practice*

Economic and medical discourses under register variation in English and French languages: Terms and lexical bundles analysed through corpora for pedagogical purposes

Tiffany Jandrain

PhD Student

tiffany.jandrain@umons.ac.be



17/11/2017, Adam Mickiewicz
University, Poznań

Introduction

Problems of the transposition of “register, genre, style,...” in translations made by students...

Cf. Fawcett (1997), Gile (2005), Popineau (2016), Alarcón-Navio et al. (2016)

Introduction



... with still much work to be done in that field

Cf. Vandaele (2015), Lefer & Vogeleer (2016), Gledhill & Kübler (2016)

So, what do we need?

→ A need to **characterise registers** in EN and in FR by **identifying patterns** of register features (based on Gledhill & Kübler 2016)

< recurrence - frequency

Introduction

For this study:

Phraseology in two different specialised
languages associated to different **registers**

Outline

1. A theoretical overview
 - ❖ Register variation (RV), LSP and specialised discourse, popular discourse, Anglicisation, lexical bundles

→ **Hypothesis:** To which extent are terms and lexical bundles of Eco. and Med. LSP marked by RV in specialised and popular texts in English and in French?
2. Methodological steps
3. Results and discussion
4. Conclusion



1. A theoretical overview

- Register variation
- LSP and specialised discourse
- Popular discourse
- Terms and lexical bundles

Register variation

A register

= “a **variety** of language that a language user considers **appropriate** to a specific **situation**”

(Baker 2011: 13)

Register variation

Register variation (RV)

= “functional or diaphasic variation determined by the situational context”

(Neumann 2014: 2)

→ Language is used in a particular way to fulfil communicational **functions**

(Biber & Conrad 2009)

Register variation

Register

≠ Genre

“a set of texts, spoken and written, which are institutionalized in so far as they are considered by a given speech community to be of the same type, for example the genre of political speeches or the genre of editorials”

(Baker 2011: 302)

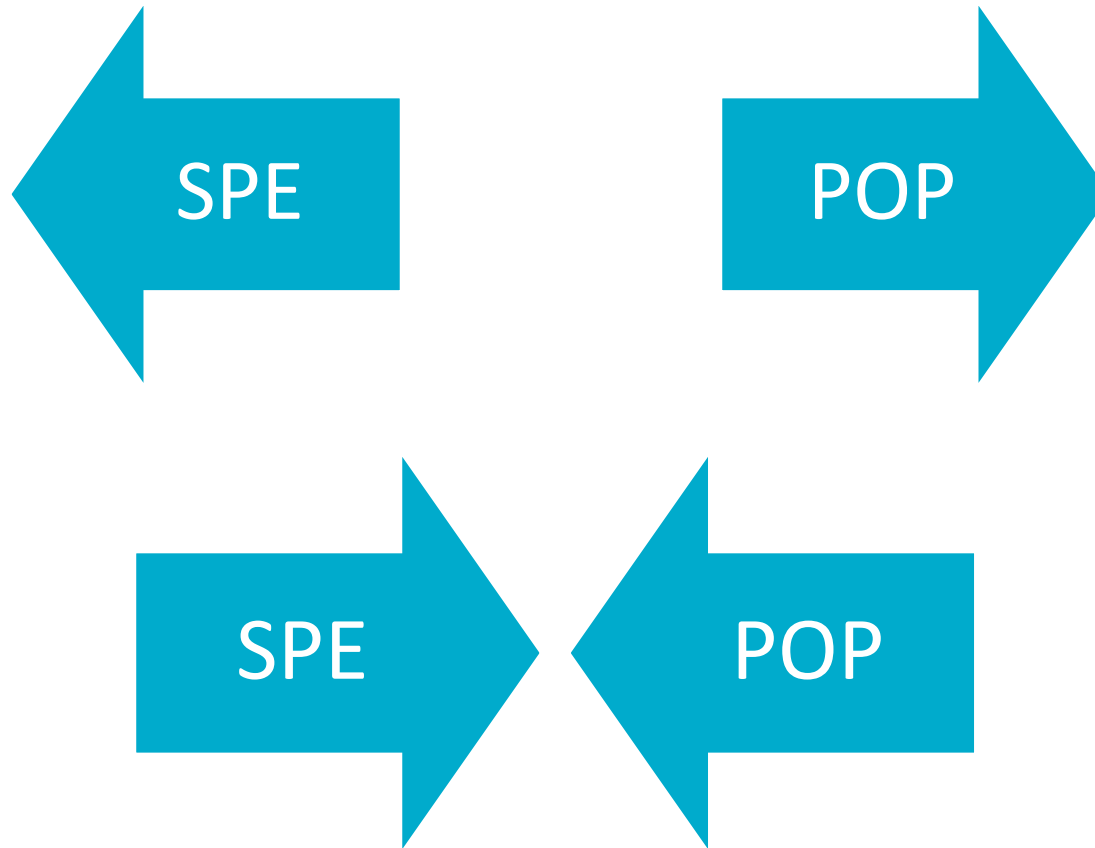
LSP and specialised discourse

Definition:

"LSP is the language that is used to discuss specialized **fields of knowledge**. It is actually more accurate to talk about LSP in the **plural** (...) since different LSPs are used to describe different areas of specialized knowledge (...). Of course, there is some **overlap** between LGP [Language for General Purposes] and LSP. LSP typically contains a number of specialized **terms**; however, a lot of **general words** show up in LSP conversations. (...) An LSP may also have special ways of **combining** terms or of **arranging** information that differ from LGP."

(Bowker & Pearson 2002: 25-26; my emphases)

Specialised and popular discourses



Popular discourse

Defining features:

- Texts are written for a **heterogeneous public** (composed of specialists and non-specialists);
- Texts are written by **various authors** (journalists as well as members of other communities);
- Texts are **not expressed in usual terms**;
- Texts are published on **various supports and interactions**;
- Texts are **not peer-reviewed**.

(Delavigne 2003)

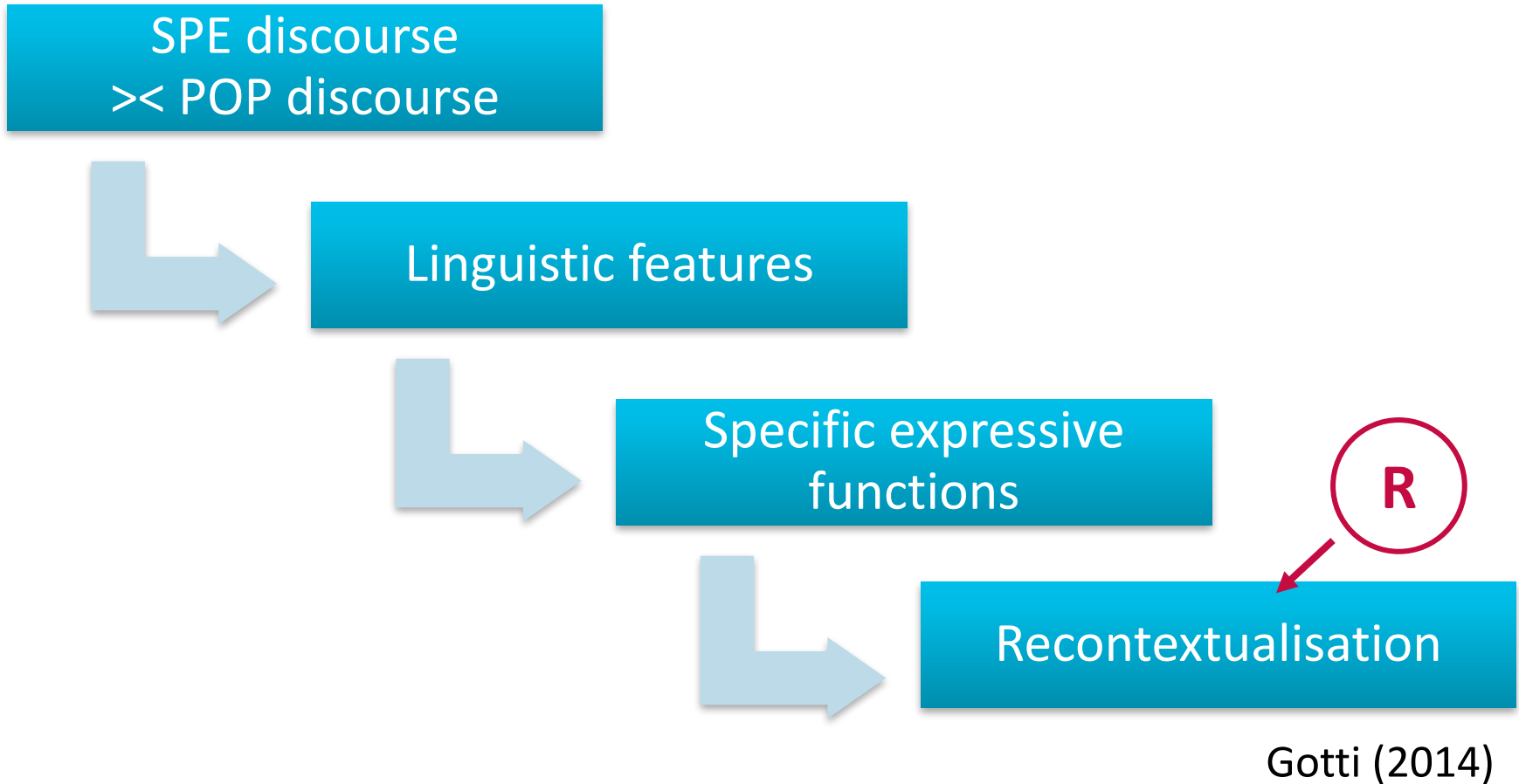
Popular discourse



(Delavigne 2003)

Phraseology? (Gledhill & Kübler 2016)

Popular discourse



LSPs analysed in this study

Two LSPs:

- ❖ Economic LSP
- ❖ Medical LSP

→ Anglicisation

- EN as *lingua franca*
- EN flexibility and concision
- Supremacy of the USA in those disciplines

(Faure 2010, Soubrier 2016)

Anglicisation

Anglicism:

“an English word or phrase that is used in another language” (Cambridge Dictionary)

- Direct borrowings
 - Semantics (~ false friends)
-
- Semantics, syntax, morphology, phonetics (Soubrier 2016)

Anglicisation?

❖ Terminology

→ Term, i.e. « word, phrase, symbol or formula expressing a concept specific to a field of use »

(Pavel & Nolet 2001: 117; my translation)

❖ Phraseology

→ **Lexical bundles**

(based on Grabowski 2013)

Lexical bundles

Lexical bundles =

“multi-word prefabricated expressions”

(Biber et al. 2005: 372)

"the most frequent recurring lexical sequences in a register"

(Biber et al. 1999 in Biber et al. 2005: 376)

“sequences of three or more words that occur frequently in natural discourse and constitute lexical building blocks used frequently by language users in different situational and communicative contexts (Biber et al. 1999: 990-991)”

(Grabowski 2013: 393)

3 primary functions: stance expressions, discourse organizers, referential expressions

(Biber et al. 1999 in Lefer & Grabar 2015)

Lexical bundles

Examples:

- Referential expressions: *too much of*
- Discourse organizers: *in the same way*
- Stance expressions: *it is not surprising that*

Lefer & Grabar 2015

Hypothesis

→ ***Hypothesis:*** To which extent are terms and lexical bundles of Eco. and Med. LSP marked by RV through anglicisation in specialised and popular texts in English and in French?

LSPs analysed here

Topics in this study:

- ❖ Economic LSP → **property (real estate)**
- ❖ Medical LSP → **diabetes**

2. Methodological steps

- Corpus Linguistics
- Corpus compilation
- Software

Methodology

A corpus-driven approach

Corpus

= “a **large** collection of **authentic** texts that have been gathered together in **electronic** form according to a **specific** set of **criteria**”

(Bowker & Pearson 2002: 9)

“texts (...) selected (...) in order to be used as a **representative** sample of a particular language or subset of that language”

(*ibid.*: 10)

Methodology

Corpus linguistics

= a methodological approach to study **language use**

(Bowker & Pearson 2002: 9)

→ To study language as a **social** phenomenon, based on **actual** data
(Robert de Beaugrande)

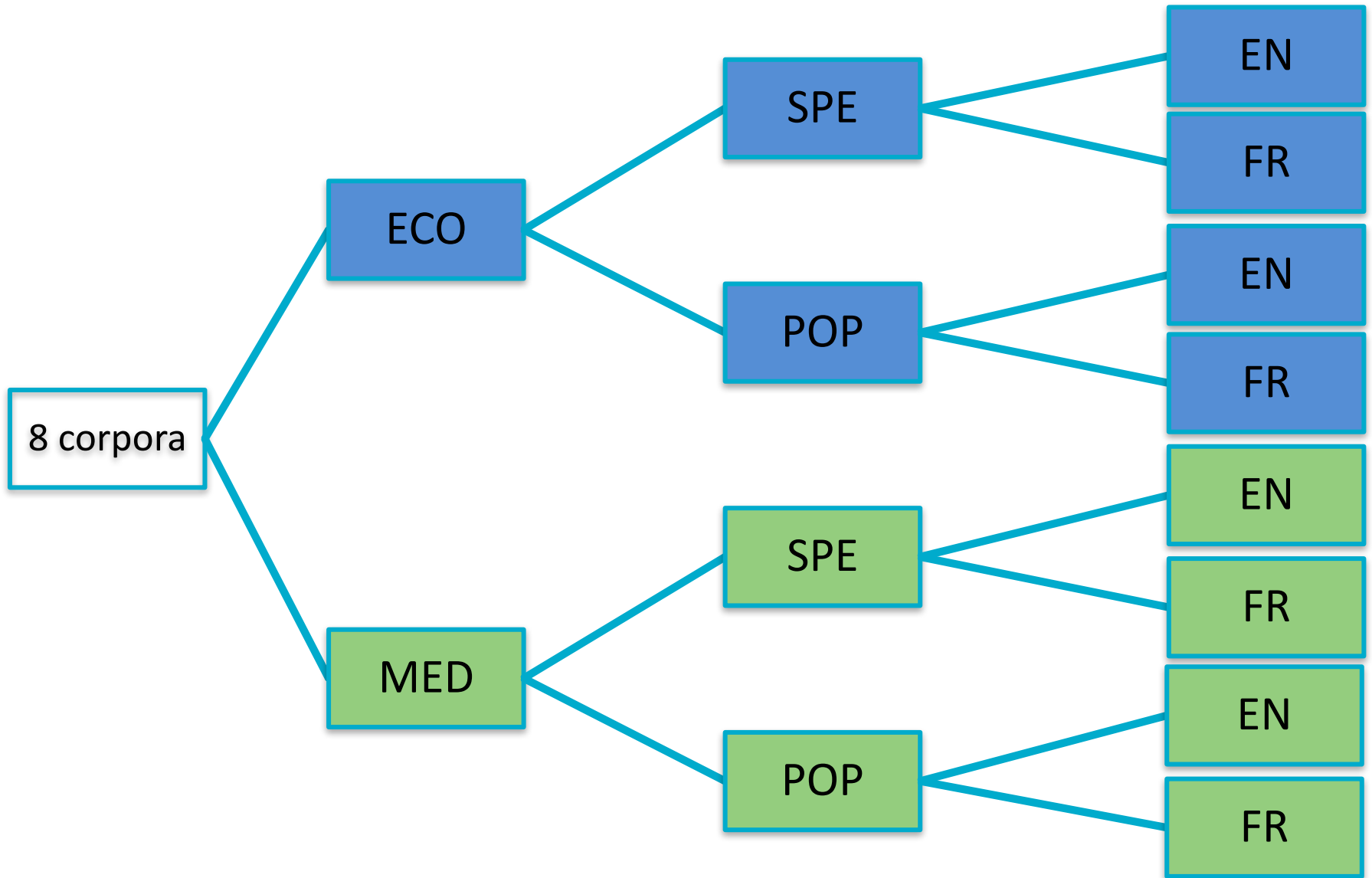
→ **Functionalist** approach (J.R. Firth, M.A.K. Halliday, J. Sinclair)

(Zanettin 2012)

Corpora

1. ECO – SPE – EN
2. ECO – SPE – FR
3. ECO – POP – EN
4. ECO – POP – FR
5. MED – SPE – EN
6. MED – SPE – FR
7. MED – POP – EN
8. MED – POP – FR

Corpora



Corpus compilation: ECO sources

1. ECO – SPE – EN

Journal of Property Management, Real Estate Economics, Housing Studies, Journal of Real Estate Research, Habitat International, Journal of Real Estate Literature, CPA Journal, Land Economics, Journal of Accountancy, Appraisal Journal.

2. ECO – SPE – FR

Revue d'Économie financière, Vie et Sciences de l'Entreprise, Revue d'Économie régionale et urbaine, L'Observateur de l'OCDE, Perspectives de l'OCDE, Revue des Sciences de Gestion, Revue économique, Économie & Prévision, Note du Conseil d'analyse économique, Revue de l'OFCE.

3. ECO – POP – EN

*The Guardian, The Telegraph, Financial Times, The Economist, The Independent, The Huffington Post, BBC News, Property Journal, House Magazine, Government.UK (→ **British English**)*

4. ECO – POP – FR

*Le Monde, L'Express, Le Figaro, Libération, La Tribune, Forbes, Le Parisien, Pap.fr, L'Obs, MagImmo (→ **French of France**)*

Corpus compilation: MED sources

5. MED – SPE – EN

The Lancet, Diabetes Research & Clinical Practice, Metabolism, The American Journal of Medicine, The Journal of Pediatrics, The American Journal of Cardiology, Atherosclerosis, American Journal of Ophthalmology, Transplantation Proceedings, Obstetrics, Journal of Vascular Surgery.

6. MED – SPE – FR

La Presse médicale, Obésité, Néphrologie & Thérapie, Revue de médecine périnatale, Phytothérapie, Les Cahiers de l'année gériatrique, Pelvi-périnéologie, Revue de médecine interne, Journal de Gynécologie obstétrique, Journal français d'ophtalmologie

7. MED – POP – EN

New Scientist, NHS, WHO, Diabetes UK, The Guardian, BBC News, Science News, Popular Science, The Telegraph, The Huffington Post (→ British English)

8. MED – POP – FR

Le Figaro, L'Express, OMS, Association Belge des Diabétiques, Fédération Française des Diabétiques, Top Santé, e-Santé, Le Monde, Futura Sciences, Pour la Science (→ French of France)

Corpus compilation: criteria

SPE Corpora	POP Corpora
30 extracts of research articles (500 words)/corpus	30 extracts of press articles (500 words)/corpus
Originals (EN – FR)	Originals (EN – FR)
Written by specialists	Written by natives
In Am/Br EN <i>or</i> Fr/Be French	In Br EN <i>or</i> Fr French
From 2007 to 2017	From 2007 to 2017
From 10 sources (3 x 10)	From 10 sources (3 x 10)

= a total of 240 texts (120,000 words)

Criteria based on Bowker & Pearson 2002

Software AntConc®

The screenshot displays the AntConc 3.4.4m application window on a Macintosh OS X 10.14. The interface includes a menu bar (AntConc, File, Settings, Help), a toolbar with icons for search, settings, and help, and a status bar showing the time as 18:17. The main window is divided into several panes:

- Corpus Files:** A list of text files on the left side of the window.
- Concordance Hits:** A table with columns for Hit number, KWIC (Key Word In Context), and File name. The search term 'property' is entered in the search field. The table shows multiple occurrences of the word 'property' in various contexts, such as 'property acquisition', 'property values', and 'property buyers'.
- Search Term:** A section at the bottom left with checkboxes for 'Words', 'Case', and 'Regex', and a search window size of 50.
- Kwic Sort:** A section at the bottom left with checkboxes for 'Level 1', 'Level 2', and 'Level 3', and radio buttons for '1R', '2R', and '3R'.
- Clone Results:** A button at the bottom right of the concordance table.

By Laurence Anthony

<http://www.laurenceanthony.net/software.html>

Methodological steps

LB → 4-word sequences (Grabowski 2013)
appearing min. 4 times
in min. 4 different texts

Software AntConc[®]

AntConc 3.4.4m (Macintosh OS X) 2014

Concordance Concordance Plot File View **Clusters/N-Grams** Collocates Word List Keyword List

Total No. of N-Gram Types 14641 Total No. of N-Gram Tokens 14959

Rank	Freq	Range	N-gram
1	8	1	to pay the higher
2	7	1	pay the higher rates
3	6	4	the bank of england
4	5	3	in england and wales
5	5	1	need to pay the
6	5	1	the higher rates if
7	4	4	at the same time
8	4	1	building and contents insurance
9	4	4	for the first time
10	4	2	t have to pay
11	4	4	the first time in
12	4	1	the to tax year
13	4	3	the value of the
14	4	1	used for equity release
15	4	2	won t have to
16	3	1	an additional residential property
17	3	3	as fast as the
18	3	1	have to pay the
19	3	1	homes on the market
20	3	2	if you don t
21	3	2	if you have a
22	3	2	if you re not
23	3	2	into the property and
24	3	1	of homes on the
25	3	3	office for national statistics
26	3	1	tax when you sell
27	3	2	the average house price
--	--	--	--

Search Term Words Case Regex N-Grams

N-Gram Size Min. 4 Max. 4

Min. Freq. 1 Min. Range 1

Sort by Invert Order Search Term Position On Left On Right

Total No. 30 Files Processed

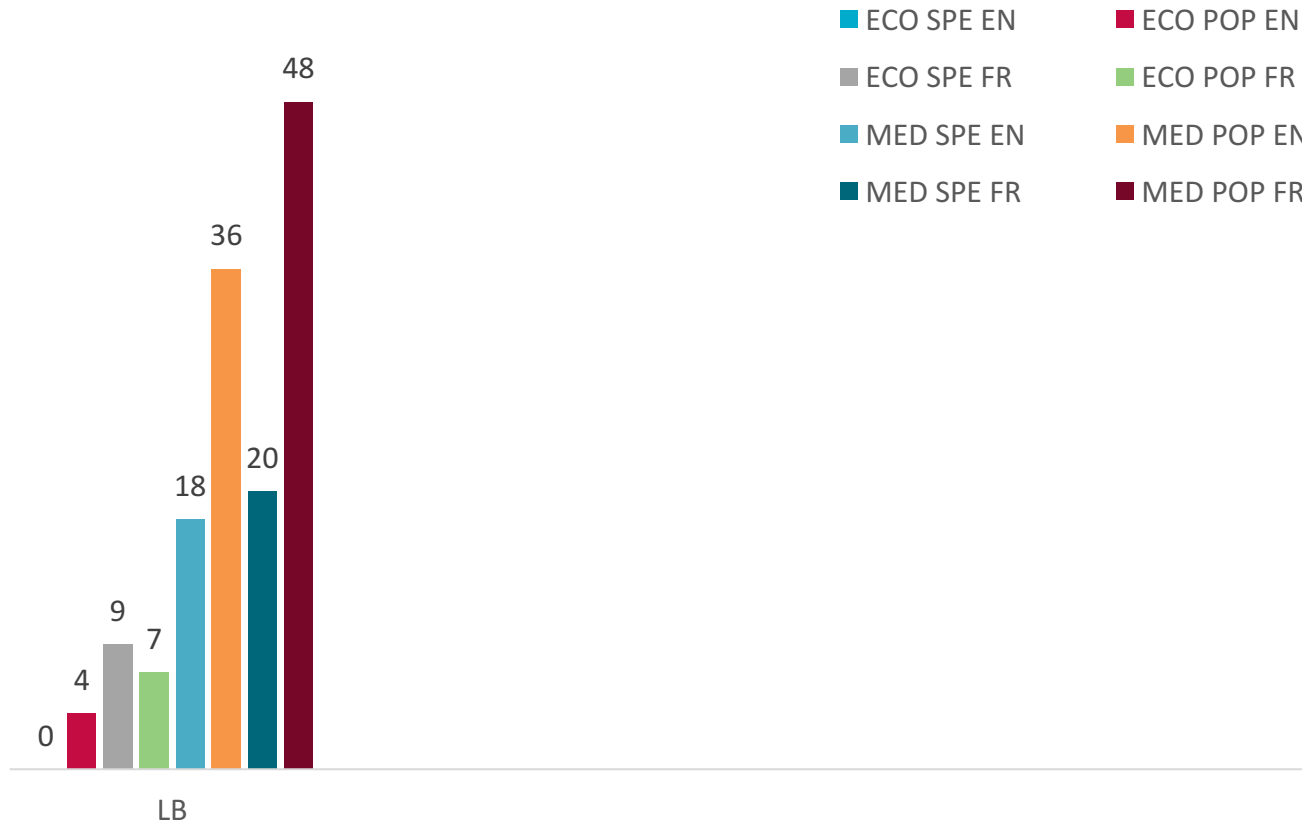
Clone Results

By Laurence Anthony

<http://www.laurenceanthony.net/software.html>

3. Results and discussion

Results



Results

At first glance,

$MED > ECO$

In MED: $FR > EN$ in POP

$FR = EN$ in SPE

In ECO: $FR = EN$ in POP

$FR > EN$ in SPE

MED seems
more formulaic
(POP > SPE)

Results

But the majority of 4-word sequences are related to the topics of the texts:

le diabète de type, de sucre dans le, glucose dans le sang, une activité physique régulière, action de l'insuline, of type 2 diabetes, risk of type 2, of people with diabetes, type 2 diabetes in, their blood sugar levels, linked to being overweight, ...

Prix de l'immobilier, marché de l'immobilier, le marché de l', de la crise financière, la baisse des prix, ...

Except ECO – SPE – EN:

At the same time, for the first time, the first time in

Results

	Lexical Bundles
MED EN	<i>has been shown to, is one of the, studies have shown that, a major cause of</i> <i>at the university of, people in the UK, the number of people, published in the journal</i>
MED FR	<i>Au cours de la</i> <i>Qu'est-ce que, est-ce que le, au cours de la, l'action de l'</i>
ECO EN	<i>/</i> <i>At the same time, for the first time, the first time in</i>
ECO FR	<i>De plus en plus</i> <i>Ce n'est pas, pour la première fois</i>

Results

LB-Résultats

Chercher dans la feuille

Accueil Insertion Mise en page Formules Données Révision Affichage

Coller Calibri (Corps) 12

Renvoyer à la ligne automatiquement Standard

Mise en forme conditionnelle Mettre sous forme de tableau Styles de cellule

Q33

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1	LB - MED - POP - FR	LB - MED - SPE - FR	LB - MED - POP - EN	LB - MED - SPE - EN	LB - ECO - POP - FR	LB - ECO - SPE - FR	LB - ECO - POP - EN	LB - ECO - SPE - EN														
2																						
3	le diabète de type	diabète de type 2	of type 2 diabetes	of type 2 diabetes	prix de l immobilier	prix de l immobilier	the bank of england	/														
4	diabète de type 1	du diabète de type	type 2 diabetes is	with type 1 diabetes	les prix de l	de plus en plus	at the same time															
5	diabète de type 2	la prise en charge	with type 2 diabetes	with type 2 diabetes	marché de l immobilier	des prix de l	for the first time															
6	du diabète de type	le diabète de type	developing type 2 diabetes	type 2 diabetes mellitus	ce n est pas	les prix de l	the first time in															
7	de diabète de type	diabète de type	risk of type 2	type 1 diabetes mellitus	le marché de l	le prix des logements																
8	sucré dans le sang	diabète de type 1	type 2 diabetes and	2 diabetes mellitus t2dm	le nombre de transactions	de la crise financière																
9	de sucre dans le	au cours de la	of developing type 2	in type 1 diabetes	pour la première fois	l évolution des prix																
10	le diabète est une	la prévalence du diabète	of people with diabetes	an individual s risk		la baisse des prix																
11	en cas de diabète	de type 2 et	with type 1 diabetes	with type 2 diabetes																		
12	glucose dans le sang	diabétiques de type 2	of type 1 diabetes	type 2 diabetes																		
13	de glucose dans le	baisse d acuité visuelle	people with type 2	body mass index bmi																		
14	diabète est une maladie	indice de masse corporelle	risk of developing type	a risk factor for																		
15	et le diabète de	la prévalence de l	2 diabetes is a	has been shown to																		
16	le traitement du diabète	prévalence de l obésité	for type 2 diabetes	is one of the																		
17	qu est ce que	un facteur de risque	have type 2 diabetes	studies have shown that																		
18	une activité physique régulière	une prise en charge	type 2 diabetes in	type 2 diabetes in																		
19	ce que le diabète	l organisation mondiale de	type 2 diabetes which	with an increased risk																		
20	de type 1 et	la diminution de la	your risk of developing	a major cause of																		
21	de type 2 le	mondiale de la santé	at the university of																			
22	est ce que le	organisation mondiale de la	diagnosed with type 1																			
23	type 2 le diabète		their blood sugar levels																			
24	2 le diabète de		type 2 diabetes the																			
25	action de l insuline		2 diabetes which is																			
26	c est le diabète		diagnosed with type 2																			
27	de type 2 est		people in the uk																			
28	de type 2 qui		the number of people																			
29	des fliots de langerhans		type 1 diabetes which																			
30	le pancréas ne produit		with diabetes have type																			
31	le taux de glucose		at high risk of																			
32	lorsque le pancréas ne		diabetes is a serious																			
33	mondiale de la santé		diabetes type 1 diabetes																			
34	revenu faible ou intermédiaire		diabetes type 2 diabetes																			
35	taux de sucre dans		linked to being overweight																			
36	au cours de la		of diabetes type 1																			
37	c est à dire		published in the journal																			
38	cas de diabète de		type 2 diabetes for																			
39	de type 1 les																					
40	des cas de diabète																					
41	des cellules du pancréas																					
42	diabète le diabète est																					
43	est une maladie chronique																					
44	excès de sucre dans																					
45	l action de l																					
46	l organisation mondiale de																					
47	organisation mondiale de la																					
48	personnes atteintes de diabète																					
49	taux de glucose dans																					
50	traitement du diabète de																					
51																						
52																						

Feuil1 Feuil2 +

Prêt 83%

Conclusion

Conclusion

- An exploratory analysis of LB in two different LSPs; those small corpora showed that MED seems more formulaic than ECO, but for the sequences with one or more terms, not for the LB (the opposite !)
- Apparently no anglicisation for those LB (with some shared structures)
- Limits of the study
- Register variation

Conclusion

For future research:

- A bigger corpus
- Anglicisation with more LB, with collocates
- LB: referential expressions especially
- A comparison between LB and collocates
- A comparison between LSPs of medicine and between LSPs of economics
- A comparison between originals and translations

References

- Anthony, Laurence. 2014. *AntConc* (Version 3.4.3) [Computer software]. Tokyo: Waseda University, <http://www.laurenceanthony.net/> (retrieved on 01/11/2017).
- Alarcón-Navio, Esperanza, Clara Inès Lopez-Rodriguez & Maribel Tercedor-Sanchez. 2016. "Variation dénomminative et familiarité en tant que source d'incertitude en traduction médicale", *Meta* 61: 1.
- Baker, Mona. 2011. *In Other Words. A Coursebook for Translation (Second Edition)*. London/New York: Routledge.
- Biber, Douglas, Susan Conrad & Viviana Cortes. 2005. "If you look at...: Lexical bundles in University Teaching and Textbooks, *Applied Linguistics*, 25/3.
- Biber, Douglas & Susan Conrad. 2009. *Register, Genre, and Style*. Cambridge: Cambridge Press University.
- Bowker, Lynn & Jennifer Pearson. 2002. *Working with Specialized Languages. A practical guide to using corpora*. London: Routledge.
- The Cambridge Dictionary*, <http://www.dictionary.cambridge.org/> (last retrieved on 16/11/2017).
- Delavigne, Valérie. 2003. "Quand le terme entre en vulgarisation", *Conférence TIA-2003 Strasbourg*, <http://www.hal.archives-ouvertes.fr/> (retrieved on 05/10/2017).
- Faure, Pascaline. 2010. "Des discours de la médecine multiples et variés à la langue médicale unique et universelle", *ASp* 58, <http://www.asp.revues.org/> (retrieved on 23/10/2017).
- Fawcett, Peter. 1997. *Translation and Language*. Manchester: St Jerome Publishing.
- Gile, Daniel. 2005. *La traduction. La comprendre, l'apprendre*. Paris: Presses Universitaires de France.
- Gledhill, Christopher & Natalie Kübler. 2016. "What can linguistic approaches bring to English for Specific Purposes?", *ASp* 69.
- Gotti, Maurizio. 2014. "Reformulation and recontextualization in popularization discourse", *Ibérica* 27, <http://www.redalyc.org/> (retrieved on 01/10/2017).
- Grabowski, Łukasz. 2013. "Register Variation across English Pharmaceutical Texts: A corpus-driven of keywords, lexical bundles and phrase frames in patient information leaflets and summaries of product characteristics", *Procedia – Social and Behavioral Sciences* 95, <http://www.sciencedirect.com/> (retrieved on 15/09/2017).
- Lefer, Marie-Aude & Natalia Grabar. 2015. *N-grams in multilingual corpora: extracting and analyzing lexical bundles in contrastive studies*, <http://natalia.grabar.free.fr/> (retrieved on 12/10/2017).
- Lefer, Marie-Aude & Svetlana Vogeleer. 2016. *Genre- and Register-related Discourse Features in Contrast*. London: John Benjamins Publishing.
- Neumann, Stella. 2014. *Contrastive Register Variation*. Berlin/Boston: De Gruyter.
- Pavel, Silvia & Diane Nolet. 2001. *Précis de terminologie*. Gatineau: Bureaux de la traduction. Travaux publics et Services gouvernementaux Canada, <http://www.termsscience.fr/> (retrieved on 26/10/2016).
- Popineau, Joëlle. 2016. "(Re)penser l'enseignement de la traduction professionnelle dans un master français : l'exemple des zones d'incertitudes en traduction médicale", *Meta* 61: 1.
- Soubrier, Jean. 2016. "Les termes d'emprunt dans les langues de spécialité", in W. Forner & B. Thöle, *Manuel des langues de spécialité*. Berlin: De Gruyter Mouton.
- Vandaele, Sylvie. 2015. "La recherche traductologique dans les domaines de spécialité : un nouveau tournant", *Meta* 60: 2.
- Zanettin, Federico. 2012. *Translation-driven Corpora: Corpus Resources for Descriptive and Applied Translation Studies*. Oxon/New York: Routledge.



Thank you for your attention!

Tiffany JANDRAIN
tiffany.jandrain@umons.ac.be
UMONS, Belgium