Assoclation Intemationale pour la Recherche en Didactlque du Francals (AIRDF)

Quick start, slow finish: Learning the lexis of French is like learning to play the guitar

$$
\begin{gathered}
\text { DS-1540 } \\
\text { 15h10 - 15h50 Bloc J-6 } \\
\text { Tom Cobb }
\end{gathered}
$$



Assoclation Intemationale pour la Recherche en Didactlque du Francals (AIRDF)

# Vite à demarrer, lente à finir : 

Acquérir le lexique du français est comme apprendre à jouer au guitare

$$
\begin{gathered}
\text { DS-1540 } \\
\text { 15h10 - 15h50 Bloc J-6 } \\
\text { Tom Cobb }
\end{gathered}
$$



## Earlier title

## Profiling French Vocabulary:

The shape of lexicons by frequency \& coverage

DS-1540<br>15h10 - 15h50 Bloc J-6<br>Tom Cobb



## Resumé

- Le profilage de la fréquence lexicale (PFL, Laufer et Nation, 1995), très influent dans la recherche et l'instruction du vocabulaire en anglais langue seconde (English as a Second Language, ou ESL), a eu un début plutôt lent en français. Ceci est dû notamment au manque d'accès à des grands corpus français à partir desquels des informations pédagogiquement pertinentes sur la fréquence des mots pourraient être dérivées. Des efforts pionniers dans les années 1990 (Goodfellow et Lamy, 2002) ont facilité des comparaisons prometteuses de la couverture lexicale des textes en français et en anglais (Cobb \& Horst, 2004), ce qui a eu des implications pédagogiques qui étaient à la fois intéressantes et pratiques (Ovtcharov, Cobb \& Halter, 2006), mais non concluantes, en raison de l'incomplétude de l'information sur lesfréquences (des mots). En revanche, présentement le travail le travail qui sous-tend le Dictionnaire des fréquences du français de Lonsdale et Lebras (Routledge 2009) a produit et mis à disposition des informations sur la fréquence des mots autant complète que lemmatisée, tirée de corpus français. Cela signifie que les chercheurs et les enseignants peuvent désormais, en principe, utiliser la méthode dePFL pour explorer en profondeur la composition lexicale, la sophistication, et la «richesse» des textes français.

À être discuté sera la méthode d'intégration des informations sur la fréquence au sein d'une méthodologie PFL, des exemples des types de recherche qui rendent possible ce profilage, et les moyens par lesquels les chercheurs peuvent accéder aux outils de cette analyse afin de les utiliser pour leurs propres fins. Les premiers résultats représentatifs de l'application de cette méthodologie en français seront offerts, y compris une suggestion que le français déploie ses ressources lexicales différemment de l'anglais et peut présenter des défis lexicaux nouveaux et précédemment indéfinis à ses apprenants.

## Key assumptions

(1) Reading competence is largely lexical competence
(2) Lexical competence includes but is not limited to knowing words
(3) The big problem is WHICH words are most important to know
(4) That word frequency is the best available guide to the utility of knowing a word

- And essential to any discussion of "lexical competence"
(5) That learning starts with recognition of form and main meaning
--- which is largely sufficient for reading
--- with production coming later

Frequency - the main new idea of the "vocab revolution" 1990- in ESL/FL...

Is Zipf's old idea that some
 words get way more use in any language

But now made useable by corpus technology


## Computer + empirical research $=\mathbf{w h e r e}$ to draw the line on frequency



## Key Concepts

- Frequency
- Word: The number of occurrences of a word in a corpus
- Family: The occurrences of a whole word family in a corpus
- Family $=$ Word + Inflections + derivations
- Frequency Band
- Groups of (usually 1,000) word families (or $k$-lists)
- Frequency profile
- The \% of word tokens in a particular text that are from each band
- E.g, $70 \%$ from first $1,000,10 \%$ from $2^{\text {nd }} 1,000$, etc.


## Example

- "The cat sat on the mat"
- The 1k
- Cat

1k

- Sat

1k

- On 1k
- The 1k
- Mat 4k
- Six words $=100 \%$ of text
$-1 k$ items $=5 / 6$ of text $=83 \%$
- So 1 k gives $83 \%$ coverage in this text
- Or "accounts for" 83\% of the tokens"

So the profile is:

- $1 \mathrm{k}=83 \%$
- $4 \mathrm{k}=17 \%$

The pedagogical question is:

- Can a learner with 1,000 words 'read' this text?
- I.e. infer the meaning of 'mat' to build a semantic model of the entire proposition

The empirical research is:

- $95 \%$ coverage is needed for reliable inference
- So 'mat' here would be Maybe


## Visual of a VP for Text "x" (v. 2016)

| Freq. Level | Families (\%) | Types (\%) | Tokens (\%) | Cumul. token \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| K-1 Words : | 218 (69.21) | 251 (71.51) | 828 (85.27) | 85.27 |  |
| K-2 Words : | 45 (14.29) | 50 (14.25) | 66 (6.80) | 92.07 |  |
| K-3 Words : | 22 (6.98) | 23 (6.55) | 36 (3.71) | 95.78 |  |
| K-4 Words : | 6 (1.90) | 8 (2.28) | 11 (1.13) | 96.91 |  |
| K-5 Words : | 5 (1.59) | 6 (1.71) | 6 (0.62) | 97.53 |  |
| K-6 Words : | 1 (0.32) | 1 (0.28) | 1 (0.10) | 97.63 |  |
| K-7 Words : | 2 (0.63) | 2 (0.57) | 2 (0.21) | 97.84 |  |
| K-8 Words : | 2 (0.63) | 2 (0.57) | 2 (0.21) | 98.05 |  |
| K-9 Words : |  |  |  |  |  |
| K-10 Words : | : 4 (1.27) | 4 (1.14) | 4 (0.41) | 98.46 |  |
| K-11 Words : | : 2 (0.63) | 2 (0.57) | 2 (0.21) | 98.67 |  |
| K-12 Words | : 1 (0.32) | 1 (0.28) | 2 (0.21) | 98.88 | lextutor.ca/ |
| K-13 Words : | : 2 (0.63) | 2 (0.57) | 2 (0.21) | 99.09 |  |
| K-14 Words : | 1 (0.32) | 1 (0.28) | 1 (0.10) | 99.19 | vp/ |
| K-15 Words : K-16 Words : |  |  |  |  |  |
| K-17 Words : | : 1 (0.32) | 1 (0.28) | 1 (0.10) | 99.29 |  |
| K-18 Words : | : 1 (0.32) | 1 (0.28) | 1 (0.10) | 99.39 |  |
| K-19 Words : |  |  |  |  |  |
| K-20 Words : | 1 (0.32) | 1 (0.28) | 1 (0.10) | 99.49 |  |
| K-21 Words : |  |  |  |  |  |
| K-22 Words : |  |  |  |  |  |
| K-23 Words : |  |  |  |  |  |
| K-24 Words : | : 1 (0.32) | 1 (0.28) | 1 (0.10) | 99.59 | 13 |
| K-25 Words : |  |  |  |  |  |

## Key concept:

## Minimal Lexical Competence for reading

- Defined in English as knowing 95\% of the words in a text
- Or, when your lexical knowledge cover 95\% of the words in a text
- Or, your knowledge gives you 95\% coverage of a text
-As determined how?

<Back (to rename, correct errors, change band, block excessively items, etc) Cloze Passage with BN-Coca_Post_4k items removed Text: NZ_Forestry[6]| 9 Words removed in Text of 373 Wor (2.14\%)|

Questions: 9 Correct: 0 Tries: 0 Percent: 0 *Check ${ }^{*}$ History $\gg$ [

Other capital costs will depend on the degree of processing and the proportion of total production that is processed. At the potential maximum of 36 million cubic meters per ${ }_{[5]}$
$\checkmark$ there would be sufficient timber to allow the construction of a number of ${ }_{[6]}^{\text {■ }}$ - and ${ }_{[7]}^{\text {- mills }}$ costing up to 4000 million dollars at 1978 prices ( excluding upwards of another 1000 million for extra electricity). Although the potential total expenditure is large over the next three years ( possibly approaching 6000-7000 million dollars [8] v of harvesting and transport investment) , the [ध]

- requirements would probably average only 2-2.5 percent of total investment in all sectors, though it would be
http://lextutor.ca/cloze/vp/


## Classic coverage figures for English

Table 3: Average coverage based on a corpus of 5 million words

| Number of words | Coverage provided |
| :--- | :--- |
| 10 | $23.7 \%$ |
| 100 | $49 \%$ |
| 1,000 | $74.1 \%$ |
| 2,000 | $81.3 \%$ |
| 3,000 | $85.2 \%$ |
| 4,000 | $87.6 \%$ |
| 5,000 | $89.4 \%$ |
| 12,448 | $95 \%$ |
| 43,831 | $99 \%$ |
| 86,743 | $100 \%$ |

Source: Carroll, Davies \& Richman (1971).


Frequency frammunnk ic «VP_PI A Q9ic: $11 \mathrm{k} 2 \mathrm{k}+\mathrm{AWI}$ )s
«VP-CLASSIC (1k, 2k + AWL)»
WEFW - smaller texts but richer information (integral, edit, propers, cognates, extr


1, consistency, 2 where to look



Especially as empirical research showed basic comprehension depends on 95\% words known -e.g. Laufer 1989


## Fairly uniform across disciplines

Table 2: Lexical frequency profiles across disciplines (coverage percentages).

| Brown segment | Discipline | No. of words | 1000 | 2000 | $\begin{aligned} & 1000+ \\ & 2000 \end{aligned}$ | AWL | $\begin{aligned} & 1 \mathrm{~K}+ \\ & 2 \mathrm{~K}+ \\ & \text { AWL } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| J32 | Linguistics | 2031 | 73.51 | 8.37 | 81.88 | 12.60 | 94.48 |
| J29 | Sociology | 2084 | 74.23 | 4.75 | 78.98 | 13.44 | 92.42 |
| J26 | History | 2036 | 69.3 | 5.7 | 75.00 | 14.49 | 89.49 |
| J25 | Social Psychology | 2059 | 73.63 | 3.11 | 76.74 | 14.38 | 91.12 |
| J22 | Development | 2023 | 76.42 | 4.55 | 80.97 | 12.26 | 93.23 |
| J12 | Medicine (anatomy) | 2024 | 71.05 | 3.80 | 74.85 | 6.72 | 81.57 |
| J11 | Zoology | 2026 | 75.12 | 6.17 | 81.29 | 7.31 | 88.60 |
| M |  |  | 73.32 | 5.21 | 78.53 | 11.60 | 90.13 |
| SD |  |  | 2.42 | 1.74 | 3.01 | 3.24 | 4.30 |

## So it was a reasonable question to ask, "Is there an AWL in French?"

## An interesting question for several reasons...

1 PRACTICE:
Investigate lexical competence in French on behalf of FL2 learners

2 THEORY:
Investigate a curious puzzle
Since English AWL basically = French cognates...
So in French are these terms "academic words" or common words? Within or beyond $2 k$ ?

# An interesting question ... 

## Which it gradually became possible to answer

## [4 Automatic Assessment of Language Learners' vacabu

## Assessing Learners' Texts using the Lexical Frequency Profile

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# Compiling French word frequency lists for the VAT: a feasibility study 

Glyn Jones, Consultant to the Project

## Summary:

In my opinion it is quite feasible, within the budgeted time frame, to produce word lists which would enable the construction of, at the very least, a working demonstration version of the Vocabulary Assessment Tool for French. However, if the PAROLE corpus (see below) can be made available then it should be possible to do better than this: in fact to produce word lists that are as valid for French as the General Service List and University Word List (the lists used by Laufer \& Nation) are for English.

## 1 introduction

The aim of the Vocabulary Assessment Tool (VAT) project is to develop the necessary tools to derive a Lexical Frequency Profile (LFP) for texts written by learners of French, as an aid to assessing the quality of those texts

## [ "The project" being the Open University Lexical Frequency Project, coordinated by Robin Goodfellow, who has kindly provided me with these lists. - Tom Cobb]

WWW.lextutor.ca/vp/fr/glynn_jones.html

| abandon | abandon | 5 | 0.000055 |
| :---: | :---: | :---: | :---: |
| abandonné | abandon | 5 | 0.000055 |
| abandonnée | abandon | 5 | 0.000055 |
| abandonner | abandon | 5 | 0.000055 |
| abandonner | abandon | 5 | 0.000055 |
| abandonne | abandon | 5 | 0.000055 |
| abandonnes | abandon | 5 | 0.000055 |
| abandonnons | abandon | 5 | 0.000055 |
| abandonnez | abandon | 5 | 0.000055 |
| abandonnent | abandon | 5 | 0.000055 |
| abandonnais | abandon | 5 | 0.000055 |
| abandonnait | abandon | 5 | 0.000055 |
| abandonnions | abandon | 5 | 0.000055 |
| abandonniez | abandon | 5 | 0.000055 |
| abandonnaient | abandon | 5 | 0.000055 |
| abandonnai | abandon | 5 | 0.000055 |
| abandonnas | abandon | 5 | 0.000055 |
| abandonna | abandon | 5 | 0.000055 |
| abandonnâmes | abandon | 5 | 0.000055 |
| abandonnâtes | abandon | 5 | 0.000055 |
| abandonnèrent | abandon | 5 | 0.000055 |
| abandonnerais | abandon | 5 | 0.000055 |
| abandonnerait | abandon | 5 | 0.000055 |
| abandonnerions | abandon | 5 | 0.000055 |
| abandonneriez | abandon | 5 | 0.000055 |
| abandonneraient | abandon | 5 | 0.000055 |
| abandonnerai | abandon | 5 | 0.000055 |
| abandonneras | abandon | 5 | 0.000055 |
| abandonnera | abandon | 5 | 0.000055 |
| abandonnerons | abandon | 5 | 0.000055 |

## [ Www.lextutor.ca/vp/fr/nat_acc/basewrd1_new.bxt

## ah ah

à au aux
abandonner abandonner abandonne abandonnes abandonnons abandonnez abandonnent abandonnais abandonnait abandonnions aba abandonna abandonnâmes abandonnates abandonnèrent abandonnerai abandonneras abandonnera abandonnerons abandonnerez aban abandonnassions abandonnassiez abandonnassent abandonnerais abandonnerait abandonnerions abandonneriez abandonneraient abandonnés abandonnées abandon
abord abord abords
absence absence absences
accepter accepter accepte acceptes acceptons acceptez acceptent acceptais acceptait acceptions acceptiez acceptaient ac acceptèrent accepterai accepteras acceptera accepterons accepterez accepteront acceptasse acceptasses acceptat acceptas accepterait accepterions accepteriez accepteraient acceptant accepté acceptée acceptés acceptées
accès accès
accident accident accidents
accompagner accompagner accompagne accompagnes accompagnons accompagnez accompagnent accompagnais accompagnait accompag accompagnas accompagna accompagnâmes accompagnâtes accompagnèrent accompagnerai accompagneras accompagnera accompagnero accompagnasses accompagnat accompagnassions accompagnassiez accompagnassent accompagnerais accompagnerait accompagnerio accompagné accompagnée accompagnés accompagnées accord accord accords
accuser accuser accuse accuses accusons accusez accusent accusais accusait accusions accusiez accusaient accusai accusa accuserai accuseras accusera accuserons accuserez accuseront accusasse accusasses accusat accusassions accusassiez accu accuseriez accuseraient accusant accusé accusée accusés accusées
acheter acheter achète achètes achetons achetez achètent achetais achetait achetions achetiez achetaient achetai acheta achèterai achèteras achètera achèterons achèterez achèteront achetasse achetasses achetat achetassions achetassiez ache achèteriez achèteraient achetant acheté achetée achetés achetées
acte acte actes acteur acteur acteurs action action actions activité activité activité activités actuel actuel actuels actuelle actuelles actuellement actuellement
administration administration administrations
adopter adopter adopte adoptes adoptons adoptez adoptent adoptais adoptait adoptions adoptiez adoptaient adoptai adopta adopterai adopteras adoptera adopterons adopterez adopteront adoptasse adoptasses adoptat adoptassions adoptassiez adop adopteriez adopteraient adoptant adopté adoptée adoptés adoptées
adresser adresser adresse adresses adressons adressez adressent adressais adressait adressions adressiez adressaient ad adressèrent adresserai adresseras adressera adresserons adresserez adresseront adressasse adressasses adressat adressas adresserait adresserions adresseriez adresseraient adressant adressé adressée adressés adressées
affaire affaire affaires
agence agence agences
agir agir agis agit agissons agissez agissent agissais agissait agissions agissiez agissaient agimes agites agirent agi agisses agisses agit agissions agissiez agissent agirais agirait agirions agiriez agiraient agissant agi
agréable agréable
aider aide aider aides aidons aidez aident aidais aidait aidions aidiez aidaient aidai aidas aida aidâmes aidates aidèr aideront aidasse aidasses aidat aidassions aidassiez aidassent aiderais aiderait aiderions aideriez aideraient aidant a
ailleurs ailleurs

## Web VP en français (v.2.7, auto-tritilement des noms

## propres, Jan 2010)

Coller'taper texte ci-dessous, cliquer sur SAISIR FENÊTRE pour produire un profil lexical du texte.
Titre: Sans_titre
Comment? | Clavier anglais? | Freg Analysis | VP Recherche 1 | ... 2 | D'où ces listes? | LISTS:
1k, 2k, 3k

Saisissez votre texte ici. Ce logiciel vous informera ensuite combien de mots sont présents dans le texte pour chacun des quatre niveaux de fréquence suivants:
(1) la liste des 1000 mots-familles les plus fréquents,
(2) la liste des mots-familles de 1001 à 2000 ,
(3) la liste des mots-familles de 2001 à 3000 , et
(4) les mots qui n'apparaissent en aucune des listes précedentes.

Pour obtenir une démonstration, soumettre simplement ce texte-ci.

Préparation du texte

Général: Inclure un espace vide après toute virgule et point final.
Recherche: Corriger toute erreur d'orthographe ou d'usage et traiter tout nom propre.
Mots à récategoriser comme haute fréquence (e.g. noms propres etc dans votre texte).

*     + Tout nom propre $=1 \mathrm{k} \square$

Textes Démos: Pompiers | Le Devoir (CBC) | La Presse (CBC) | Le Devoir (ABANDON) | La Presse (ABANDON) | Entrevue Orale |
SAISIR FENÊTRE
OU... Choose File No file chosen disk dur + Soumettre_fichier pour télécharger de fichiers TEXTE BRUT ( $\sim$.txt, à
limite env. 50 k mots). + Tout nom propre $=1 \mathrm{k} \square$

Home $>$ VocabProfilers $>$ VP Français $>$ Output ttt
700\% SPEED UP ON JAN 26, 2006
(a1 Morde (1 to 10 DO$):$
Function:
Content:
K2 Words (1001 to 2000): 63
Families Types Tokens 279
$\ldots$
$\ldots$
63 310 788 81.15\%
(452 (46.55\%) (34.60\%) | 3K Words (2001 to 3000):

Ofi-List Mords:

| $?$ | $\frac{54}{451+?}$ |
| :--- | :--- |

$\underline{62}$
971
10.61\%
$1.85 \%$
$6.39 \%$
100\%

## English

## French

| Freq. Level | Types (\%) | Tok ns (\%) |
| :---: | :---: | :---: |
| K-1 Words | 119 (70.41) | 257 (77.88) |
| K-2 Words | 11 (6.51) | 1. (4.24) |
| AWL <br> [570 fams] <br> TOT 2,570 | 17 (10.06) | 18 |
| Off-List: | 25 (14.79) | 41 (12.42) |
| Total (unrounded) | 169 (100) | 330 (100) |


| Percent |
| ---: |
| $81.15 \%$ |
| $(46.55 \%)$ |
| $(34.60 \%)$ |
| $10.61 \%$ |
| $1.66 \%$ |
| $6.39 \%$ |
| $100 \%$ |

## So is French getting the AWL effect for free?



# The question was gradually reformulated: 

 Is there an AWL in French?"Is there room for an AWL In French?"

# Vocabulary in a Second Language 

Edited by<br>Paul Bogaards<br>Batia Laufer

2004

## Chapter 2

# Is there room for an academic word list in French? 

Tom Cobb and Marlise Horst<br>Universite du Queber à Montredal, Conoordia University


#### Abstract

Extensive analysis of corpora has offered learners of English a solution to the problem of which among the many thousands of English words are most useful to know by identifying lists of high frequency words that make up the core of the language. Of particular interest to university-bound learners is Coxhead's (2000) Academic Word List (AWL.). Analyses indicate that knowing the 570 word families on this list along with the 2000 most frequent families consistently offers coverage of about $85 \%$ of the words learners will encounter in reading an academic text in English. This finding raises the question of whether such lists can be identified in other languages The research reported in this chapter provides an initial answer in the case of French. Lists of the 2000




## The answered seemed, "No"

$1 k+2 k$ is already giving $90 \%$ coverage in French
(Because French contains its AWL within its common lexis?)

And the remaining $10 \%$ is presumably needed for technical, archaic, oddball, \& misspelled items

With the implication that acquiring a functional lexical competence was easier in French

Less to learn for = coverage


Meanwhile, back in English

1. Definition of basic competence recalculated :

The Comprehension-Bar is raised
$95 \%$ coverage $\rightarrow 98 \%$ coverage (Nation, 2006)
2. Definition of technical lexis became less clear Some domains just use common words ('needle’ in nursing)
3. New corpora put the existence of AWL in question

- BNC lists (2005)
- BNC-COCA lists (2012)
- AWL just an artefact of the old pre-corpus $1 \mathrm{k}-2 \mathrm{k}$ frequency lists?


## VP-BNC-Coca - new type of profile

14) 

73 (8.73) 16 (1.91)
$23(2.75)$ 10 (1.20)

K-15 Words : 2 (0.66)
K-16 Words : 1 (0.33) K-17 Words :

2 (0.54)
1 (0.27)
1 (0.12)
90.44
zoom
K-18 Words : 1 (0.33)
1 (0.27)
1 (0.12)
90.56

So the new question about French is ~ Is there room for an AWL In French?
"How are the medium and low frequency
lexical resources of French deployed in the remaining 10\% space available?"

What does this imply for learning French?

Again, the question gradually became answerable $\rightarrow$


## 25 lemmatized French k-lists

- From Lonsdale \& Le Bras dictionary project at BYU
- Based on 23-million word corpus
- Continental + International French 50/50
- Spoken and written 50/50
- Literary 40\%, expository 60\%
- List-crunched for RANGE + FREQ


## 

all＿lems＿tabbed＿fr．txt $\times$

54105 éviscérer
54106 éviscéré
54107 évitable
eviration

54108 évitant évitan
54109 évitement évitement
54110 éviter évita évitai évitaient évitais évitait évitant évite évitent évi éviterais éviterait éviterez éviteriez éviterons éviteront évites évitez évitèrent évité évitée évitées évités
évité évité évités évitée évitée évitées
évocateur évocateur évocateurs évocatrice évocatrices
évocation évocation évocations évocatoire évocatoire
54116 évoluant évoluant
54117 évoluer évolua évoluaient évoluais évoluait évoluant évolue évoluent évo évolueront évoluons évoluèrent évolué évoluée évoluées évolués évolutif évolutif évolutifs évolutive évolutives évolution évolution évolutions
54120 évolutionnisme évolutionnisme
54121 évolutionniste évolutionniste évolutionnistes
54122 évolué évolué évoluée évoluées évolués
54123 évoquant évoquant
54124 évoquer évoqua évoquai évoquaient évoquais évoquait évoquant évoquassent évoquerai évoqueraient évoquerait évoquerons évoqueront évoques évoquez évoquât évoquèrent évoqué évoquée évoquées évoqués
54125 évoqué évoqué évoquée évoquées évoqués
54126 évulsion évulsion
54127 événement évènement évènements événement événements
54128 événementiel événementiel événementielle événementielles événementiel 54129 évêché évêché évêchés
54130 évêque évêque évêques
54131 être es est furent fus fusse fussent fusses fussiez fussions fut fûme serait seras serez seriez serions serons seront soient sois soit sommes était étant étiez étions été êtes être êtres
54132


## FRENCH - v. 5

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| K-8 Words : | 2 (0.63) | 2 (0.57) | 2 (0.21) | 98.05 |
| K-9 Words : |  |  |  |  |
| K-10 Words : | : 4 (1.27) | 4 (1.14) | 4 (0.41) | 98.46 |
| K-11 Words : | : 2 (0.63) | 2 (0.57) | 2 (0.21) | 98.67 |
| K-12 Words : | : 1 (0.32) | 1 (0.28) | 2 (0.21) | 98.88 |
| K-13 Words : | : 2 (0.63) | 2 (0.57) | 2 (0.21) | 99.09 |
| K-14 Words : | : 1 (0.32) | 1 (0.28) | 1 (0.10) | 99.19 |
| K-15 Words : K-16 Words : |  |  |  |  |
|  |  |  |  |  |
| K-17 Words : | : 1 (0.32) | 1 (0.28) | 1 (0.10) | 99.29 |
| K-18 Words : | : 1 (0.32) | 1 (0.28) | 1 (0.10) | 99.39 |
| K-19 Words : |  |  |  |  |
| K-20 Words : | 1 (0.32) | 1 (0.28) | 1 (0.10) | 99.49 |
| K-21 Words : |  |  |  |  |
| K-22 Words : |  |  |  |  |
| K-23 Words : |  |  |  |  |
| K-24 Words : | : 1 (0.32) | 1 (0.28) | 1 (0.10) | 99.59 |
| K-25 Words : |  |  |  |  |
| Off-List: | ?? | 3 (0.85) | 4 (0.41) | 100.00 |

So with this we can investigate the shape of the mid-frequency French lexicon
And make plausible comparisons with
English

- What lies between 90\% and 95\% coverage in French texts? -Or between 90\% and 98\%?
- Is there "less to learn" in French than in English ?
- (Remembering that lemmas $\neq$ families)


## 3 tests

## Test 1

## Translated popular texts

20 translated Readers' Digest texts

$$
\rightarrow 20 \mathrm{Fr}, 20 \mathrm{Eng}
$$

Half translated Eng->Fr, half Fr-> Eng
Total 2939 words Eng, 3650 words Fr

Run through VP-Fr as a mini-corpus
(as a single file)



## Eng <br> Side by side

Fr

## (fams) <br> Using 98\% criterion

## (lemmas)

| Freq. Level | Families (\%) | Types (\%) | Tokens (\%) | Cumul. token \% |
| :---: | :---: | :---: | :---: | :---: |
| K-1 Words : | 497 (53.44) | 609 (56.39) | 2243 (76.32) | 76.32 |
| K-2 Words : | 177 (19.03) | 211 (19.54) | 307 (10.45) | 86.77 |
| K-3 Words : | 121 (13.01) | 134 (12.41) | 176 (5.99) | 92.76 |
| K-4 Words : | 52 (5.59) | 55 (5.09) | 76 (2.59) | 95.35 |
| K-5 Words : | 28 (3.01) | 30 (2.78) | 37 (1.26) | 96.61 |
| K-6 Words : | 18 (1.94) | 18 (1.67) | 18 (0.61) | 97.22 |
| K-7 Words : | 10 (1.08) | 11 (1.02) | 18 (0.61) | 97.83 |
| K-8 Words : | 11 (1.18) | 11 (1.02) | 14 (0.48) | 98.31 |
|  |  |  |  |  |
| K-10 Words : | 1 (0.11) | 1 (0.09) | 1 (0.03) | 98.51 |
| K-11 Words : | 2 (0.22) | 2 (0.19) | 2 (0.07) | 98.58 |
| K-12 Words : | 2 (0.22) | 2 (0.19) | 3 (0.10) | 98.68 |
| K-13 Words : | 1 (0.11) | 1 (0.09) | 2 (0.07) | 98.75 |
| K-14 Words : |  |  |  |  |
| K-15 Words : |  |  |  |  |
| K-16 Words : |  |  |  |  |
| K-17 Words : | 1 (0.11) | 1 (0.09) | 1 (0.03) | 98.78 |
| K-18 Words | 2 (0.22) | 2 (0.19) | 2 (0.07) | 98.85 |
| K-19 Words : | 1 (0.11) | 1 (0.09) | 3 (0.10) | 98.95 |
| K-20 Words : |  |  |  |  |
| K-21 Words : |  |  |  |  |
| K-22 Words : |  |  |  |  |
| K-23 Words : |  |  |  |  |
| K-24 Words : | 1 (0.11) | 1 (0.09) | 1 (0.03) | 98.98 |
| K-25 Words : |  |  |  |  |
| Off-List: | ?? | 27 (2.50) | 30 (1.02) | 100.00 |
| Total (unrounded) | 930+? | 1080 (100) | 2939 (100) | 100.00 |


| Freq. Level | Families (\%) |  | Types (\%) | Tokens (\%) |
| :--- | :--- | :--- | :--- | ---: | Cumul. toker

## So ~

With the new lists and definitions

- (Note that 98\% figure has never actually been established for French)
- While English and French both get to $90 \%$ at about 3,000 families/lemmas
- English gets to 98\% at 8,000 known words
- French gets to $98 \%$ at 16,000 known words!


## Fr

## (lemmas)

- A lot of words lie behind that circle!
- The difference between k8 to k16 is only 100 word types in this minicorpus
- ... these 100 words are drawn from a pool of 8,000 lemmas
- So for generalizability...




## Vite à demarrer ~

lente à finir


## Test 2

## Translation of extended literary work

- Samuel Beckett's idea - French as "an impoverished lexicon"?
- Actually he never said this
- But he did write in French, and "use stark language to convey a stark world"
- How stark is Beckett's French?



## WEB VP OUTPUT FOR FILE: Waiting for Godot

User Re-cats + Mid-Sentence Capped Offlist Words $\Rightarrow \mathbf{1 k}$ ( 221 types): AP Abel Acacacacademy Act Adieu Agony Ah Albert All An And Another Answer Anthropopopon Cain Calm Can Careful Christ Clapham Closer Coat Come Comfort Connemara Cunard Cunnard Dance Dead Decidedly Did Didi Do Does Don Done ESTRAGON Eiffel E Forward Friday Fulham Funny Further Gentlemen Get Give Go God Godin Godot Gogo Good Gospels Gozzo Hanky Hard Hat Have Having He Help Here Higher Highness More Must My Nature Net Never Nice No Nor Not Nothing Now ON Of Oh On One Or Ow PALLED POZZO Peckham Perhaps Peterman Peterson Possy Pozzo Profession Spring Stand Steinweg Stool Stop Sunday Surely TELL Tell Testew Thank That The There They Things Think This Thursday Till Touch Tower Try Turn Twas Two Unless Up Wouldn Yes You Your end_of_list

Cognates $\Rightarrow \mathbf{~ 1 k}$ : None
Text Pre-Processing Notes: In the output text, punctuation is eliminated; all figures (1, 20, etc) are replaced by the word number, contractions are replaced by constituent words may sum to less than total (depending on user treatment of proper nouns as well as program decision to class numbers as 1 k although not contained in 1 k list); sing


| Freq. Level | Families (\%) | Types (\%) | Tokens (\%) | Cumul. token \% |
| :---: | :---: | :---: | :---: | :---: |
| K-1 Words : | 684 (44.56) | 1010 (50.45) | $\begin{gathered} 18209 \\ (89.66) \end{gathered}$ | 89.66 |
| K-2 Words : | 299 (19.48) | 357 (17.83) | 947 (4.66) | 94.32 |
| K-3 Words : | 126 (8.21) | 145 (7.24) | 296 (1.46) | 95.78 |
| K-4 Words : | 109 (7.10) | 122 (6.09) | 226 (1.11) | 96.89 |
| K-5 Words : | 83 (5.41) | 94 (4.70) | 143 (0.70) | 97.59 |
| K-6 Words : | 48 (3.13) | 51 (2.55) | 111 (0.55) | 98.14 |
| n-1 viorue |  |  |  |  |
| K-8 Words : | 27 (1.76) | 28 (1.40) | 39 (0.19) | 98.65 |
| K-9 Words : | 26 (1.69) | 27 (1.35) | 39 (0.19) | 98.84 |
| K-10 Words : | 20 (1.30) | 20 (1.00) | 30 (0.15) | 98.99 |
| K-11 Words : | 23 (1.50) | 24 (1.20) | 32 (0.16) | 99.15 |
| K-12 Words : | 13 (0.85) | 14 (0.70) | 15 (0.07) | 99.22 |
| K-13 Words : | 12 (0.78) | 12 (0.60) | 14 (0.07) | 99.29 |
| K-14 Words : | 7 (0.46) | 7 (0.35) | 9 (0.04) | 99.33 |
| K-15 Words : | 4 (0.26) | 4 (0.20) | 5 (0.02) | 99.35 |
| K-16 Words : | 4 (0.26) | 5 (0.25) | 6 (0.03) | 99.38 |
| K-17 Words : | 5 (0.33) | 5 (0.25) | 6 (0.03) | 99.41 |
| K-18 Words : | 1 (0.07) | 1 (0.05) | 1 (0.00) |  |
| K-19 Words : | 1 (0.07) | 1 (0.05) | 1 (0.00) |  |
| K-20 Words : | 3 (0.20) | 3 (0.15) | 3 (0.01) | 99.42 |
| K-21 Words : | 1 (0.07) | 1 (0.05) | 1 (0.00) |  |
| K-22 Words : | 1 (0.07) | 1 (0.05) | 1 (0.00) |  |

User Re-cats + Mid-Sentence Capped Offlist Words $\Rightarrow \mathbf{1 k}$ ( 285 types): ACTE ASSEZ Achève Adieu Affreux Ah Aide Albert Allez Allons Alors Anglais Anthropopopomé Aie Bagages Belcher Berne Bien Blonde Bon Bonnelly Bozzo Bresse Ca Calme Catulle Cain Ce Ceci Cela Cent Certainement Ces Chacune Charmante Combien Comme Des Deux Didi Dieu Dis Dites Do Dommage Donne Donnez Du Durance Déj Développez EME ER ESTRAGON Ecoute Eh Eile Elles Eloignez En Encore Enfin Engueule Er Godin Godot Gogo Gozzo Heu Hier Hélas Jamais Je Jover Jusqu Jésus LE La Laisse Le Les Li Liés Lucky Lui Láchemoi Lève MR Ma Mainteant Maintenant Mais Mal Mak Non Nos Notre Nous Oh On Ou Oui PAS POU POZZO PREM Pah Panier Par Parce Pardon Parfaitement Partons Pas Passons Pauvre Pendons Pense Petermann Peuch Puis Qu Quand Que Quel Quelle Question Qui Quoi RACONTE RE Raconte Reconnais Regarde Regardez Relève Remarquez Reprenons Reste Retour Rien Roussillon S: Tes Testu Tiens Tre Toi Toujours Tout Toute Toutes Traiter Trois Tu Un Une VAN VLAD Vas Vaucluse Vendredi Venez Veux Viens Vite Vladimir Voil Voul Vouloir Vous Voy

Cognates $\Rightarrow \mathbf{~ 1 k}$ : None
Text Pre-Processing Notes: In the output text, punctuation is eliminated; all figures (1, 20, etc) are replaced by the word number, contractions are replaced by constituen words may sum to less than total (depending on user treatment of proper nouns as well as program decision to class numbers as 1 k although not contained in 1 k list); sing


| Freq. Level | Families (\%) | Types (\%) | Tokens (\%) | Cumul. token \% |
| :--- | :--- | :--- | :--- | ---: |
| K-1 Words : | $576(50.88)$ | $894(56.87)$ | 11917 |  |
| $(90.29)$ | 90.29 |  |  |  |
| K-2 Words : | $173(15.28)$ | $208(13.23)$ | $370(2.80)$ | 93.09 |
| K-3 Words : | $100(8.83)$ | $123(7.82)$ | $179(1.36)$ | 94.45 |
| K-4 Words : | $68(6.01)$ | $72(4.58)$ | $111(0.84)$ | 95.29 |
| K-5 Words : | $37(3.27)$ | $37(2.35)$ | $46(0.35)$ | 95.64 |
| K-6 Words : | $27(2.39)$ | $29(1.84)$ | $34(0.26)$ | 95.90 |
| K-7 Words : | $27(2.39)$ | $28(1.78)$ | $36(0.27)$ | 96.17 |
| K-8 Words : | $23(2.03)$ | $25(1.59)$ | $34(0.26)$ | 96.43 |
| K-9 Words : | $15(1.33)$ | $16(1.02)$ | $20(0.15)$ | 96.58 |
| K-10 Words : | $17(1.50)$ | $18(1.15)$ | $23(0.17)$ | 96.75 |
| K-11 Words : | $13(1.15)$ | $14(0.89)$ | $23(0.17)$ | 96.92 |
| K-12 Words : | $7(0.62)$ | $8(0.51)$ | $13(0.10)$ | 97.02 |
| K-13 Words : | $10(0.88)$ | $10(0.64)$ | $16(0.12)$ | 97.14 |
| K-14 Words : | $6(0.53)$ | $6(0.38)$ | $6(0.05)$ | 97.19 |
| K-15 Words : | $7(0.62)$ | $7(0.45)$ | $10(0.08)$ | 97.27 |
| K-16 Words : | $5(0.44)$ | $5(0.32)$ | $7(0.05)$ | 97.32 |
| K-17 Words : | $4(0.35)$ | $4(0.25)$ | $4(0.03)$ | 97.35 |
| K-18 Words : | $5(0.44)$ | $5(0.32)$ | $5(0.04)$ | 97.39 |
| K-19 Words : |  |  |  |  |
| K-20 Words : | $3(0.27)$ | $3(0.19)$ | $3(0.02)$ | 97.41 |
| K-21 Words : | $3(0.27)$ | $3(0.19)$ | $4(0.03)$ | 97.44 |
| K-22 Words : | $2(0.18)$ | $2(0.13)$ | $3(0.02)$ | 97.46 |
| K-23 Words : |  |  |  |  |
| K-24 Words : | $1(0.09)$ | $1(0.06)$ | $1(0.01)$ | 97.47 |
| K-25 Words : | $3(0.27)$ | $3(0.19)$ | $4(0.03)$ | 97.50 |

## "Waiting for Godot"

## «En attendant Godot»

| Freq. Level | Families (\%) | Types (\%) | Tokens (\%) | Cumul. token \% |
| :---: | :---: | :---: | :---: | :---: |
| K-1 Words : | 684 (44.56) | 1010 (50.45) | $\begin{gathered} 18209 \\ (896) \end{gathered}$ | 89.66 |
| K-2 Words: | 299 (19.48) | 357 (17.83) | 947 (4.66) | 94.32 |
| K-3 Words : | 126 (8.21) | 145 (7.24) | 296 (1.46) | 95.78 |
| K-4 Words : | 109 (7.10) | 122 (6.09) | 226 (1.11) | 96.89 |
| K-5 Words : | 83 (5.41) | 94 (4.70) | 143 (0.70) | 97.59 |
| K-6 Words: | 48 (3.13) | 51 (2.55) | 111 (0.55) | 98.14 |
| ner wouns: | (1.7) | (1. | -0.0.0) |  |
| K-8 Words: | 27 (1.76) | 28 (1.40) | 39 (0.19) | 98.65 |
| K-9 Words: | 26 (1.69) | 27 (1.35) | 39 (0.19) | 98.84 |
| K-10 Words : | 20 (1.30) | 20 (1.00) | 30 (0.15) | 98.99 |
| K-11 Words : | 23 (1.50) | 24 (1.20) | 32 (0.16) | 99.15 |
| K-12 Words : | 13 (0.85) | 14 (0.70) | 15 (0.07) | 99.22 |
| K-13 Words : | $12(0.78)$ | 12 (0.60) | 14 (0.07) | 99.29 |
| K-14 Words : | 7 (0.46) | 7 (0.35) | 9 (0.04) | 99.33 |
| K-15 Words : | 4 (0.26) | 4 (0.20) | 5 (0.02) | 99.35 |
| K-16 Words : | 4 (0.26) | 5 (0.25) | 6 (0.03) | 99.38 |
| K-17 Words : | 5 (0.33) | 5 (0.25) | 6 (0.03) | 99.41 |
| K-18 Words : | 1 (0.07) | 1 (0.05) | 1 (0.00) |  |
| K-19 Words : | 1 (0.07) | 1 (0.05) | 1 (0.00) |  |
| K-20 Words : | 3 (0.20) | 3 (0.15) | 3 (0.01) | 99.42 |
| K-21 Words : | 1 (0.07) | 1 (0.05) | 1 (0.00) |  |
| K-22 Words : | 1 (0.07) | 1 (0.05) | 1 (0.00) |  |


| Freq. Level | Families (\%) | Types (\%) | Tokens (\%) | Cumul. token \% |
| :---: | :---: | :---: | :---: | :---: |
| K-1 Words : | 576 (50.88) | 894 (56.87) | $\begin{aligned} & 11917 \\ & (90.29) \end{aligned}$ | 90.29 |
| K-2 Words : | 173 (15.28) | 208 (13.23) | 370 (2.80) | 93.09 |
| K-3 Words: | 100 (8.83) | 123 (7.82) | 179 (1.36) | 94.45 |
| K-4 Words: | 68 (6.01) | 72 (4.58) | 111 (0.84) | 95.29 |
| K-5 Words : | 37 (3.27) | 37 (2.35) | 46 (0.35) | 95.64 |
| K-6 Words : | 27 (2.39) | 29 (1.84) | 34 (0.26) | 95.90 |
| K-7 Words: | 27 (2.39) | 28 (1.78) | 36 (0.27) | 96.17 |
| K-8 Words: | 23 (2.03) | 25 (1.59) | 34 (0.26) | 96.43 |
| K-9 Words : | 15 (1.33) | 16 (1.02) | 20 (0.15) | 96.58 |
| K-10 Words : | 17 (1.50) | 18 (1.15) | 23 (0.17) | 96.75 |
| K-11 Words : | 13 (1.15) | 14 (0.89) | 23 (0.17) | 96.92 |
| K-12 Words : | : 7 (0.62) | 8 (0.51) | 13 (0.10) | 97.02 |
| K-13 Words : | 10 (0.88) | 10 (0.64) | 16 (0.12) | 97.14 |
| K-14 Words : | 6 (0.53) | 6 (0.38) | 6 (0.05) | 97.19 |
| K-15 Words : | 7 (0.62) | 7 (0.45) | 10 (0.08) | 97.27 |
| K-16 Words : | 5 (0.44) | 5 (0.32) | 7 (0.05) | 97.32 |
| K-17 Words : | 4 (0.35) | 4 (0.25) | 4 (0.03) | 97.35 |
| K-18 Words : | : 5 (0.44) | 5 (0.32) | 5 (0.04) | 97.39 |
| K-19 Words : 3 (0.27) |  |  |  |  |
| K-20 Words : | 3 (0.27) | 3 (0.19) | 3 (0.02) | 97.41 |
| K-21 Words : | 3 (0.27) | 3 (0.19) | 4 (0.03) | 97.44 |
| K-22 Words : | 2 (0.18) | 2 (0.13) | 3 (0.02) | 97.46 |
| K-23 Words : |  |  |  |  |
| K-24 Words : | 1 (0.09) | 1 (0.06) | 1 (0.01) | 97.47 |
| K-25 Words : | 3 (0.27) | 3 (0.19) | 4 (0.03) | 97.50 |

## Test 3

Maybe Tests $1+2$ were something about translated texts?

Ok, then let's compare 4 random original editorial texts<br>From each of ~<br>(1) Le Devoir - Montreal<br>(2) Le Monde - Paris<br>(3) The Globe \& Mail - Toronto<br>(4) The NY Times - New York

Chosen 14-15 August, 2016



## Conclusion

(1) Comparing languages:

- French makes slightly more use of its common words than English does
- But it makes far more use of its mid- and lowfrequency lexical resources ( 3 k to $20 \mathrm{k}+$ )
- So, Yes, languages are distinct in the way they deploy their lexical resources
- So Cobb \& Horst (2004) was right as far as it went, but incomplete
- Old technology, fledgling paradigm,...


## Conclusion

## (2) Comparing learning tasks:

Learning enough vocab for 90\% coverage looks slightly easier in French than English

But learning enough words for $98 \%$ or even $95 \%$ coverage looks far more difficult
$95 \%$ is best guess at basic lexical competence for reading 98\% for full competence
How many FL2-S's ever get to basic ?
(3) The shapes of the two lexicons seem to be like this:

English


## French




## TOGETHER:

Eng
Fr
!


## Superimposed



But notice that the French early advantage
(higher coverage) persists to about $4 k$
(So 3k words in French gives better coverage than in English)

So our best guess (v.2016) at basic lexical competence for reading in $\mathrm{FL}_{2}$ ?


1 word in 10 unknown

1 word in 20 unknown

1 word in 50 unknown

## Where to start? How many words do our students know already?

| TTV - Test de la taille du vocabulaire Étude de maîtrise de Roselene Batista, Université Concordia, février 2014 |  |  |  |
| :---: | :---: | :---: | :---: |
| La deuxième tranche de mille mots |  |  |  |
| 1. concours |  | 1. brâler |  |
| 2. division |  | 2. distinguer |  |
| 3. joie | grand plaisir un moyen de transport séparation en deux parties | 3. examiner <br> 4. mentionner | imaginer |
| 4. phase |  |  | 4. mentionner $\qquad$ remarquer |
| 5. stade |  | 5. rêver | détruire par le feu |
| 6. véhicule |  | 6. supprimer |  |
| 1. autorisation |  | 1. fondamental |  |
| 2. bonjour |  | 2. global |  |
| 3. confusion | erreur | 3. moderne | comple |
| 4. faim | le besoin de manger | 4. prudent | qui est la base |
| 5. rupture | la maison de la justice | 5. récent | qui ne prend pas de risques |
| 6. tribunal |  | 6. traditionnel |  |
| 1. adapter |  | 1. attaque |  |
| 2. crier |  | 2. contribution |  |
| 3. distribuer | partager | 3. dommage | institution |
| 4. formuler | parler très fort | 4. église | action violente ensemble de pièces |
| 5. procéder | aller d'un côté à l'autre | 5. incident |  |
| 6. traverser |  | 6. mécanisme |  |
| 1. bras |  | 1. actif |  |
| 2. circuit |  | 2. inutile |  |
| 3. détermination | tour | 3. fier | occupé |
| 4. match |  |  |  |
| 5. réception |  |  |  | C? pouvoir |
| 6. theorie |  |  |  |

## Where to start? How many words do our students know already? (2)

## USE RANDOM WORDS TO

OPTION ONE
Do whatever you like
OPTION TWO
Make novel Yes-No Checklist Tests in 4 easy steps (Why \& How)
[1] From Generator on the left screen, get 25 random real words
at a level, eliminate 5
[2] Click HERE to add 50\% PNWs to your list
(Length-appropriate random PNWs)
See all PNWs 'plausible non-words'
Note which are PNWs before integrating!
[3] Click HERE to integrate
[4] Paste to column of MS-Word template

## Afterthought

- Which language is out of step here - English or French?
- Few languages have a separate academic lexicon
- Hazenburg \& Hulstijn (c. 2005) calculated basic lexical competence in Dutch at 10,000 lemmas
- Maybe the shape of English reflects the lingua franca role the language has come to play
- Such that its writers use *circumlocution* for complex ideas, rather than seeking «le mot juste»?


## ENGLISH AS A LINGUA FRANCA? BUT SURELY NOT IN 19th CENT.

## WEB VP OUTPUT FOR FILE: Darwin_Origin_ch4 (93,535 chars)

User Re-Cats + Mid-Sentence Capped Offlist Words => 1k: ( types):
Cognates => $\mathbf{1 k}$ : None
Text Pre-Processing Notes: In the output text, punctuation is eliminated; all figures (1, 20, etc) are replaced by calculated using these modified constituents; and in the 1 k sub-analysis content + function words may sum to numbers as 1 k although not contained in 1 k list); single letters are eliminated as words except for 'a' and '1.'

| Freq. Level | Families (\%) | Types (\%) | Tokens (\%) | Cumul. token \% |
| :--- | :--- | :---: | :---: | ---: |
| K-1 Words : | $479(38.38)$ | $743(41.44)$ | 11961 | 76.00 |
| K-2 Words : | $264(21.15)$ | $385(21.47)$ | $1747 \underline{(11.10)}$ | 87.10 |
| K-3 Words : | $196(15.71)$ | $261(14.56)$ | $921 \underline{(5.85)}$ | 92.95 |
| K-4 Words : | $82(6.57)$ | $95(5.30)$ | $241(1.53)$ | 94.48 |
| K-5 Words : | $53(4.25)$ | $71(3.96)$ | $203(1.29)$ | 95.77 |
| K-6 Words : | $49(3.93)$ | $56(3.12)$ | $85 \underline{(0.54)}$ | 96.31 |
| K-7 Words : | $31(2.48)$ | $36(2.01)$ | $114(0.72)$ | 97.03 |
| K-8 Words : | $27(2.16)$ | $32(1.78)$ | $83 \underline{(0.53)}$ | 97.56 |
| K-9 Words : | $16(1.28)$ | $17(0.95)$ | $47 \underline{(0.30)}$ | 97.86 |
| K-10 Words : | $12(0.96)$ | $12(0.67)$ | $55 \underline{(0.35)}$ | 98.21 |
| K-11 Words : | $6(0.48)$ | $6(0.33)$ | $7 \underline{(0.04)}$ | 98.25 |



TIIE ORIGIN OF SPECIES
m xass of surne macnix
 ne wirs.

Bi chaguse mawny, Ma.


Loxtox:
folsy wrazay, ALBEMARLE sTBEKY.
3n

## Further work

- As ever in corpus work, this needs empirical validation
- Do FL2 readers with $5 \mathrm{k}=95 \%$ lexicons actually experience a comprehension deficit?
- Or just have to look up a few more words?
- Is it worth teaching vocab up to $98 \%$ general coverage?
- As ever in corpus work, newer better bigger lists are probably just around the next corner
- Any picture is strictly provisional (yet we must do something Monday morning...)
- Perspective needed:

My presentation deals with advanced learner issues, while $90 \%$ of vocab work is getting over the 5 k hump

- Establishing a basic form-meaning link ASAP so the true learning can begin (from reading, etc.)



## All references \& software available

 @
## www.lextutor.ca

facebook.com/groups/lextutor

## twitter.com/lextutor

## Merci !

## A method note

- But wait!
- We are comparing lemmas v. families


## Cat cats v. cat cats catty

- 1000 families give more coverage than 1000 lemmas
- How much more?
- Some recent work by Charles Browne suggests an answer


## A NEW GENERAL SERVICE LIST (1.01)

the most important words for second language learners of English

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http://www.newgeneralservicelist.org/

The chart below gives an indication of the improvement in coverage that the NGSL 1.0 version has over the origine when considering each of the words on the list with its associated inflected forms (lemmas):

| Vocabulary List | Number of "Word <br> Families" | Number of <br> "Lemmas" | Coverage in CEC <br> Corpus |
| :---: | :---: | :---: | :---: |
| GSL | 1964 | 3623 | $84.24 \%$ |
| NGSL | 2368 | 2818 | $90.34 \%$ |

2368 / 2818 * $100=84 \%$
1000 lems have ~16\% less coverage than 1000 fams in Eng At High-Frequency NGSL zone ( $1 \mathrm{k}+2 \mathrm{k}$ )
(probably less at lower frequency zones)

## But even assuming (1) a 16\%

 difference that (2) was maintained at
## lower-frequency zones

- About every six lemma lists ( $6 \times 16 \%=96 \%$ ) we would lose a k-level to maintain lemmafamily equivalence
- So in 18 levels we would lose 3
- The picture would not change greatly
- Even in exaggerated worst-case scenario


## Eng K8 E-fams = k16 F-lems for 98\% ? $\rightarrow$ K8 E-fams = k13 F-lems for 98\% <br> (fams) <br> (lemmas)

| Freq. Level | Families (\%) | Types (\%) | Tokens (\%) | Cumul. token \% |
| :--- | :--- | :--- | :--- | ---: |
| K-1 Words : | $497(53.44)$ | $609(56.39)$ | $2243(76.32)$ | 76.32 |
| K-2 Words : | $177(19.03)$ | $211(19.54)$ | $307(10.45)$ | 86.77 |
| K-3 Words : | $121(13.01)$ | $134(12.41)$ | $176(5.99)$ | 92.76 |
| K-4 Words : | $52(5.59)$ | $55(5.59)$ | $76(2.59)$ | 95.35 |
| K-5 Words : | $28(3.01)$ | $30(2.78)$ | $37(1.26)$ | 96.61 |
| K-6 Words : | $18(1.94)$ | $18(1.67)$ | $18(0.61)$ | 97.22 |
| K-7 Words : | $10(1.08)$ | $11(1.02)$ | $18(0.61)$ | 97.83 |
| K-8 Words : | $11(1.18)$ | $11(1.02)$ | $14(0.48)$ | 98.31 |
| K-10 Words : | $1(0.11)$ | $1(0.09)$ | $1(0.03)$ | 98.51 |
| K-11 Words : | $2(0.22)$ | $2(0.19)$ | $2(0.07)$ | 98.58 |
| K-12 Words : | $2(0.22)$ | $2(0.19)$ | $3(0.10)$ | 98.68 |
| K-13 Words : | $1(0.11)$ | $1(0.09)$ | $2(0.07)$ | 98.75 |
| K-14 Words : |  |  |  |  |
| K-15 Words : |  |  |  |  |
| K-16 Words : |  |  |  |  |
| K-17 Words : | $1(0.11)$ | $1(0.09)$ | $1(0.03)$ | 98.78 |
| K-18 Words : | $2(0.22)$ | $2(0.19)$ | $2(0.07)$ | 98.85 |
| K-19 Words : | $1(0.11)$ | $1(0.09)$ | $3(0.10)$ | 98.95 |
| K-20 Words : |  |  |  |  |
| K-21 Words : |  |  |  |  |
| K-22 Words : |  |  |  |  |
| K-23 Words : |  |  |  |  |
| K-24 Words : | $1(0.11)$ | $1(0.09)$ | $1(0.03)$ | 98.98 |
| K-25 Words : |  |  |  |  |
| Off-List: | $? ?$ | $27(2.50)$ | $30(1.02)$ | 100.00 |
| Total |  |  |  |  |
| (unrounded) | $930+?$ | $1080(100)$ | $2939(100)$ | 100.00 |


| Freq. Level | Families (\%) | Types (\%) | Tokens (\%) | Cumul. token |
| :---: | :---: | :---: | :---: | :---: |
| K-1 Words : | : 443 (45.11) | 592 (51.08) | 2803 (76.79) | 76.7 |
| K-2 Words : | 181 (18.43) | 195 (16.82) | 273 (7.48) | 4.2 |
| K-3 Words : | 97 (9.88) | 103 (8.89) | 168 (4.60) | 88.8 |
| K-4 Words : | 63 (6.42) | 64 (5.52) | 83 (2.27) | 91. |
| K-5 Words : | 56 (5.70) | 58 (5.00) | 74 (2.03) | 93 |
| K-6 Words : | 15 (1.53) | 15 (1.29) | 20 (0.55) | 93.7 |
| K-7 Words : | 31 (3.16) | 34 (2.93) | 38 (1.04) | 94.7 |
| K-8 Words : | 16 (1.63) | 16 (1.38) | 23 (0.63) | 95.3 |
| K-9 Words : | 17 (1.73) | 17 (1.47) | 18 (0.49) | 95.8 |
| K-10 Words : | 16 (1.63) | 16 (1.38) | 25 (0.68) | 96. |
| K-11 Words : | : 9 (0.92) | 9 (0.78) | 12 (0.33) | 96.8 |
| K-12 Words : | 6 (0.61) | 6 (0.52) | 10 (0.27) | 97. |
| K-13 Words : | 8 (0.81) | 9 (0.78) | $10(0.27)$ |  |
| n-14 worus: | (0.r1) | -(0.09) | Y(0.zu) |  |
| K-15 Words : | 3 (0.31) | 4 (0.35) | 4 (0.11) | 97. |
| K-16 Words : | 3 (0.31) | 3 (0.26) | 8 (0.22) |  |
|  |  |  |  |  |
| K-18 Words : K-19 Words : | K-19 Words : |  |  |  |
| K-20 Words | $2(0.20)$ | 2 (0.17) | 4 (0.11) | 98 |
| K-21 Words : | : 5 (0.51) | 5 (0.43) | 5 (0.14) |  |
| K-22 Words : |  |  |  |  |
| K-23 Words : | 1 (0.10) | 1 (0.09) | 2 (0.05) |  |
| K-24 Words : 1 (0.10) $1(000)$ |  |  |  |  |
| K-25 Words : | 1 (0.10) | 1 (0.09) | 1 (0.03) | 98 |
| Off-List: | ?? | 39 (3.36) | 58 (1.59) |  |
| Total (unrounded) | 982+? | 1159 (100) | 3650 (100) | 100.0 |

