# TEACHING THROUGH CORPORA

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# What is meant by CORPORA?

a CORPUS is a collection of texts
in an electronic data-base
designed for linguistic analysis
(for a particular representative function)

# The METHODOLOGY which studies LANGUAGE through CORPORA is called

# **CORPUS LINGUISTICS**

In principle, ANY COLLECTION of more than one text can be called a corpus (corpus being Latin for "body", hence a corpus is any body of text),

BUT the term CORPUS when used in the context of modern linguistics tends to have more specific connotations than this simple definition.

# Four main characteristics of the modern corpus:

- 1) Sampling and Representativeness
- 2) Finite Size
- 3) Machine-readable form
- 4) A standard reference



### 1) Sampling and Representativeness

A corpus has to be maximally representative of the variety under examination: it has to give as accurate a picture as possible of the tendencies of that variety, as well as their proportions

> a broad range of authors and genres, for example, which, when taken together, may be considered to provide a reasonably accurate picture of the entire language population the corpus represents

### 2) Finite Size

Usually a corpus has a finite number of words which is determined at the beginning of a corpus-building project

### 3) Machine-readable form

Corpus data are usually stored on a computer, hence they:

- can be searched and manipulated at speed
- can be enriched with extra information

### 4) A standard reference

If corpora are built according to standard criteria then they can serve as standard references and can become available to other researchers

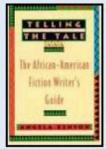
# SOME EXAMPLES of ONLINE CORPORA

# THE CORPUS OF CONTEMPORARY AMERICAN ENGLISH

400+ MILLION WORDS, 1990-2009















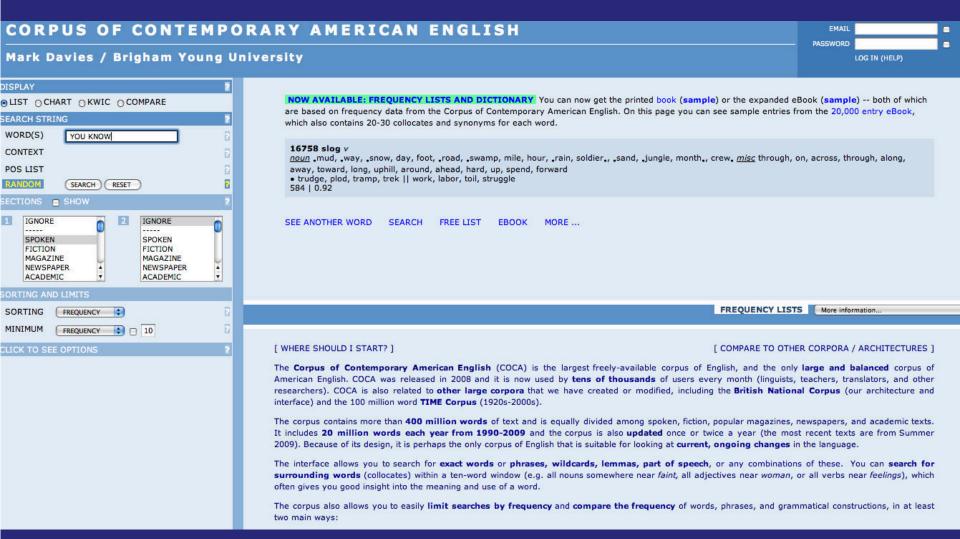


#### MARK DAVIES

BRIGHAM YOUNG UNIVERSITY

ENTER

http://corpus.byu.edu/coca/



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#### About

What is the BNC? Creating the BNC BNC Products Copyright Contact Us Contents A-Z

#### Using the BNC

What can I do with the BNC? Using BNC with Xaira FAQ

#### **Obtaining**

How to order Pricing Xaira FAQ

#### About the BNC

The British National Corpus (BNC) is a 100 million word collection of samples of written and spoken language from a wide range of sources, designed to represent a wide cross-section of current British English, both spoken and written. [more]

#### Search the Corpus

Type a word or phrase in the search box and press the Return key on your keyboard to see up to 50 random hits from the corpus.

Look up: Enter text

You can search for a single word or a phrase, restrict searches by part of speech, search in parts of the corpus only, and much more.

The search result will show the total frequency in the corpus and up to 50 examples. [more information]

#### News from the BNC

- British Library BNC Online service switches to BNC-XML
- BNC Web: new online service available to BNC Licensees
- . BNC Baby: new edition available
- Material from workshops available online
- Problems accessing your BNC trial account?

Results of your search

There is a search of your search of your year

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http://www.natcorp.ox.ac.uk/



#### **American National Corpus**

first release second release oanc resources about

#### What's New

#### ANC.org

The American National Corpus now owns the anc.org domain name! Our web address is now <a href="www.anc.org">www.anc.org</a>.

We would like to thank the Animal News Center for transferring the domain to us. In gratitude, the American National Corpus project has made a donation to the Humane Society of the United States in the name of the "other" ANC.

#### **ANC Tool Update**

October 22, 2008: Version 1.2.5 of the ANC Tool is now available. The new version fixes a problem that prevented it from starting on Mac OS X.

July 24, 2008: Version 1.2.3 of the ANC Tool is now available. The new version includes better support for selecting the Unicode character encoding, a few bug fixes, and (experimental) NLTK output.

#### The Open ANC

The open portion of the ANC (approximately 15 million words of text, with annotations) is now available for download.

#### 2nd Release Frequency Counts

Frequency counts for the second release are now available and can be downloaded here.

The American National Corpus (ANC) project is creating a massive electronic collection of American English, including texts of all genres and transcripts of spoken data produced from 1990 onward. The ANC will provide the most comprehensive picture of American English ever created, and will serve as a resource for education, linguistic and lexicographic research, and technology development.

When completed, the ANC will contain a core corpus of at least 100 million words, comparable across genres to the <u>British National Corpus</u> (BNC). The corpus will also include an "opportunistic" component of potentially several hundreds of millions of words, chosen to provide both the broadest and largest selection of texts (and, where available, annotations) possible.

#### **ANC Status**

The ANC has so far released 22 million words of American English, which is available from the Linguistic Data Consortium—please consult the LDC Catalog entry. The ANC has also released an "Open" portion of the full ANC consisting of approximately 15 million words, which is freely available for download. All ANC and OANC data include annotations for word ands sentence boundaries, part of speech (4 tagsets), and noun and verb chunks. Parts of the corpus are annotated for additional linguistic features.

#### Contribute Data and Annotations to the ANC

#### CONTRIBUTE TEXTS

The ANC is actively soliciting contributions of written texts and spoken transcripts in American English that were produced in or after 1990, to be included in the ANC and OANC.

Those who have for any purpose developed corpora of post-1989 American English are encouraged to contribute their unrestricted data to be included in the ANC. Authors can consult the <u>frequently asked questions page</u> to learn more about how the data will be used, and why you should consider contributing your work to the ANC.

### http://www.americannationalcorpus.org/#

# WHAT CAN WE DO WITH CORPORA?

## DIFFERENT PURPOSES

answer questions at various linguistic levels

= an empirical basis, evidence for linguistic description and argumentation

text archive/database

(a text repository, normally not structured)

# **AUTHENTIC DATA**

## . Empirical Data vs. INTUITION:

Data allow for the description of words in context and, especially, reflect the actual combinatorial possibilities of language

which introspection cannot discern

## . Quantitative & Qualitative Analyses:

computerized corpus analyses + functional (qualitative) interpretations of quantitative data

## . Electronic Processing:

- time-saving procedures
- wide-ranging storing
- fast and complex analyses
- replication of experimental results
- reusability and sharing of resources

# CORPUS-BASED APPROACH

"[...] the theory preexists the corpus examination" (p71)

"[...] the term corpusbased is used to refer to a methodology that avails itself of the corpus mainly to expound, test or exemplify theories and descriptions that were formulated before large corpora became available to inform language study" (p65)

# CORPUS-DRIVEN APPROACH

"The corpus-driven approach builds up the theory step by step in the presence of the evidence. The observation of certain patterns leads to a hypothesis, which in turn leads to the generalisation in terms of rules of usage and finally finds unification in a theoretical statement" (p17)

"The theory has no independent existence from the evidence [...]" (pp84-85)

Tognini-Bonelli, Elena. 2001. *Corpus Linguistics at Work*. Amsterdam, Philadelphia: John Benjamins.

# WHAT DO WE NEED?

# STEP 1

### WE NEED A CORPUS

# **CORPUS TYPES**

- General / Reference
- Specialized
- Comparable
- Parallel
- Monolingual
- Bilingual
- Multilingual



### → FOR EXAMPLE:

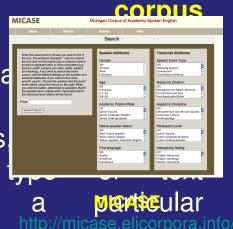
**BNC** General Referer of corpus of texts many ty a likely include wide to as spreau a *texts* from possible many<sub>o:/</sub> one as or spoken written of language or

#### **MICASE**

of texts corpus a such newspaper as academic textbooks, which is representative of which and is used to type of language

### **Specialized**

of a pa editorials, articles a given investigate



TITLE [USA/Australia, 2001 Directed by Soderberg]	OCEAN'S ELEVEN	OCEAN'S ELEVEN
Corridor, North Jersey State Prison.		
VOICE	One con under escort, open gate one, man walking. Open gate two. Let's go, face the wall. Got one under escort	Un detenuto sotto scorta, aprire cancello uno. Uomo sotto scorta, aprire cancello due. Andiamo, voltatevi verso il muro. Un detenuto sotto scorta!
Parole board hearing room, North Jersey State Prison.		
BOARD MEMBER 1 (WOMAN) to DANNY	Good morning.	Buon giorno.
DANNY	Good morning.	Buon giorno.
BOARD MEMBER 1 (WOMAN) to DANNY	Please state your name for the record.	Il suo nome per il verbale prego.
DANNY	Daniel Ocean.	Daniel Ocean.
BOARD MEMBER 1 (WOMAN) to DANNY	Thank you. Mr. Ocean, the purpose of this hearing, is to determine whether if released you are likely to break the law again. While this was your first conviction, you have been implicated, though, never charged, in over a dozen other confidence schemes and frauds. What can you tell us about this?	Grazie. Signor Ocean, lo scopo di questa udienza, è stabilire se una volta rilasciato, lei sarà incline a violare nuovamente la legge. Anche se questa è stata la sua prima condanna, lei è stato implicato sebbene, mai incriminato in più di dodici truffe. Cosa può dirci a questo proposito?
DANNY	As you say ma'am I was never charged.	Come ha detto lei, non sono mai stato incriminato.

Comparability	The Financial Times	Il Sole 24 Ore
Genre	Quality Daily Newspaper	<b>Quality Daily Newspaper</b>
Content	Finance and General	Finance and General
Year	2003	2003
Size	35.146.523 Words	31.245.954 Words
Language	English	Italian

## Bilingual Comparable

## Multilingual Parallel

```
<body lang=EN id=Bible>
<div id="b.GEN" type=book>
<div id="b.GEN.1" type=chapter>
<seg id="b.GEN.1.1" type=verse>In the beginning God created the heaven and the earth.
<seg id="b.GEN.1.2" type=verse>And the earth was without form, and void; and darkness was upon the face of the deep. And the Spirit of God moved upon the face of
the waters.
<seq id="b.GEN.1.3" type=verse>And God said, Let there be light: and there was light.
<body lang=LA id=Bible
<div id="b.GEN" type=book>
<div id="b.GEN.1" type=chapter>
<seg id="b.GEN.1.1" type=verse>in principio creavit Deus caelum et terram
<seq id="b.GEN.1.2" type=yerse>terra autem erat inanis et vacua et tenebrae super faciem abyssi et spiritus Dei ferebatur super aquas
<seg id="b.GEN.1.3" type=yerse>dixitgue Deus fiat lux et facta est lux
<body lang=SV id=Bible>
<b id="GEN ">
<div id="b.GEN.1" type=chapter>
<seg id="b.GEN.1.1" type=verse>I begynnelsen skapade Gud himmel och jord.
                                                                                                                                0
<seg id="b.GEN.1.2" type=verse>Och jorden var öde och tom, och mörker var över djupet, och Guds Ande svävade över vattnet.
<seg id="b.GEN.1.3" type=yerse>Och Gud sade: »Varde ljus»: och det vart ljus.
<body lang=DN id=Bible>
<div id="b.GEN" type=bo
<div id="b.GEN.1" type=chapter>
<seg id="b.GEN.1.1" type=verse>I Begyndelsen skabte Gud Himmelen og Jorden.
<seq id="b.GEN.1.2" type=verse>Og Jorden var øde og tom, og der var Mørke over Verdensdybet. Men Guds Ånd svævede over Vandene.
<seg id="b.GEN.1.3" type=verse>Og Gud sagde: "Der blive Lys!" Og der blev Lys.
```

# SOME ONLINE CORPORA

CORPUS OF CONTEMPORARY AMERICAN ENGLISH

http://corpus.byu.edu/coca/

TIME MAGAZINE CORPUS

http://corpus.byu.edu/time/

**MICASE** 

http://micase.elicorpora.info/

# CORPUS OF CONTEMPORARY AMERICAN ENGLISH (COCA)

http://corpus.byu.edu/coca/

CORPUS OF CONTEMPORAR	Y AMERICAN EN	GLISH		ACCESS: 0/
425 MILLION WORDS, 1990-2011				history   lists   SEE PROFILE   logou
DISPLAY  OLIST OCHART OKWIC OCOMPARE	Download COCA data for power	rful searches offline (e.g. noun+nou	in, phrasal verbs <mark>, and</mark> much more)	)
SEARCH STRING WORD(S)	N-grams (frequency of strings of	of words) NEW	Word frequency (frequency of i	individual words)
COLLOCATES	Free: 1,000,000 most frequent 2	2, 3, 4, and 5-grams	Free: Top 5,000 lemmas, 500,00	00 word forms
POS LIST  RANDOM SEARCH RESET	Purchase: All 2, 3, 4, 5-grams, a of millions of rows of data).	along with their frequency (hundreds	Purchase: Top 60,000 lemmas (i sub-genre), collocates (4.8 millio	including frequency by genre and on node/collocate pairs)
SECTIONS SHOW  IGNORE SPOKEN FICTION MAGAZINE NEWSPAPER ACADEMIC  SHOW  IGNORE SPOKEN FICTION MAGAZINE NEWSPAPER ACADEMIC		n the 400 million word Corpus of Histo est three times in the corpus, along wit		
SORTING AND LIMITS	OVERVIEW: PIERFRANCA FORC	LITNT		Help / information / contact :
SORTING FREQUENCY : 10 2				
CLICK TO SEE OPTIONS ?	Personal information			
	Institution	UCSC Milan	Update	
	Country	TTALY ‡ Update	)	
	Short profile (edit)	I have an MA in Foreign Languages PhD in Linguistic and Literary Scien applied linguistics, and contrastive University of Milan (Italy).	ices. My main interests are corpus	linguistics, language varieties,
	Activity			
	Last login (before this time)	12/9/2011 9:52:40 AM (Utah time;	same as Denver)	
	Queries (24 hours / 30 days)	12 / 12		
	Corpora used (30 days)	TIME (12)		
	KWIC lists (24 hours   saved) 0/500 [0%]   0/15000 [0%]			
	Customized word lists 0			
	Status			

# TIME MAGAZINE CORPUS http://corpus.byu.edu/time/



# **MICASE**

# http://micase.elicorpora.info/

MICASE Michigan Corpus of Academic Spoken English				
<u>Home</u>	<u>Search</u>	<u>Browse</u>	<u>Help</u>	
		Search		
the box. The wildcard c the end (but not the beg phrase to represent zer typing in walk* will give and walking). If you wis corpus, use the default transcript attributes. If y specific search, choose level criteria using the r you click the button, utt	settings on the speaker and ou wish to do a more the speaker and transcript nenus on the right. When erances by speakers that fit ia within transcripts that fit	Speaker Attrib  Gender:  All Female Male Unknown  Age:  All Unknown 17-23 24-30  Academic Posi All Junior Faculty Junior Graduate S Junior Undergrad  Native speaker  All Non-native speal Near-native speal	tion/Role:  student uate   status:  ker ker ker mmerican English	Transcript Attributes  Speech Event Type: All Advising Session Colloquium Dissertation Defense  Academic Division: All Biological and Health Sciences Humanities and Arts Not Applicable/Other  Academic Discipline: All Afroamerican and African Studies American Culture Anthropology  Participant Level: All Junior Faculty Junior Graduate Students Junior Undergraduates  Interactivity Rating: All Highly interactive Highly monologic Mostly interactive  Mostly interactive

# STEP 2

# WE NEED A SOFTWARE PROGRAM (A CONCORDANCER)

## SOFTWARE

AntConc Concorder Wordsmith Tools

. . .

Multilingual Tool

. . .

# ANTCONC http://www.antlab.sci.waseda.ac.jp/software.html

### Laurence Anthony's Website

Home	Software	
	AntConc	
Resume	A freewar	re concordance program for Windows, Macintosh OS X, and Linux.
Publications >>	The AntC	onc Homepage (including previous versions, tutorials, and help)
	Platform	Download
Software >>	(A)	AntConc3.2.4w AntConc3.2.4 - Readme
Classes		Screenshots Tested on Windows 98, 2000, ME, XP, Vista, Win 7
Photo Albums >>	0790 1	AntConc 3.2.4m AntConc3.2.4 - Readme
Links	É	Essential guide to installing AntConc on Macintosh OS X Download X11 (for OS X 10.4)
Contact		Screenshots Tested on Macintosh OS X 10.6.8
	Δ	AntConc3.2.4u AntConc3.2.4 - Readme AntConc3.2 - Linux Quick Install Guide Written by Laurence Anthony Brief guide to installing AntConc on Linux Written by Graham Ranger Screenshots Tested on Ubuntu 10 (Linux Mint 10)

# STEP 3

# WE NEED QUANTITATIVE + QUALITATIVE ANALYSES

# SOME SAMPLE ACTIVITIES

#### 1. LEARNING FREQUENT WORD TYPES

## USING WORD LISTS

CHECK
THE MOST FREQUENT WORD
IN THE GENERAL CORPUS:

N	Word	Occurrence Per 1,000 W	
1	I	34.50	
2	THE	29.76	
3	YOU	27.59	
	AND	26.59	
i	то	23.50	
	IT	18.99	
7	THAT	18.20	
	Α	18.14	
	OF	12.52	
)	YEAH	10.90	
	IN	10.69	
2	IS	10.33	
	KNOW	09.68	
	WAS	09.16	
5	HAVE	08.77	
5	LIKE	08.58	
<u>'                                    </u>	SO	08.47	
3	WE	07.88	
)	ОН	07.69	
	THEY	07.59	
	THIS	07.57	
2	IT'S	07.54	
3	WHAT	07.27	
4	JUST	07.20	
i	DO	07.00	
i	BUT	06.94	
7	WELL	06.52	
3	UH	06.44	
)	ON	06.35	
)	HE	06.29	

#### 1. LEARNING FREQUENT WORD TYPES

## USING WORD LISTS

CHECK
THE MOST FREQUENT WORL
IN THE GENERAL CORPUS:

ARE THEY MOSTLY
FUNCTION WORDS
OR CONTENT/LEXICAL WOR

WHAT GENERALIZATIONS CAN YOU MAKE ABOUT LANGUAGE AS A WHOLE?

N	Word	en American Corpus Occurrence Per 1,000 W	
	I	34.50	
	THE	29.76	
3	YOU	27.59	
4	AND	26.59	
5	TO	23.50	
6	IT	18.99	
7	THAT	18.20	
8	A	18.14	
9	OF	12.52	
10	YEAH	10.90	
1	IN	10.69	
.2	IS	10.33	
.3	KNOW	09.68	
4	WAS	09.16	
15	HAVE	08.77	
.6	LIKE	08.58	
17	SO	08.47	
.8	WE	07.88	
9	ОН	07.69	
0	THEY	07.59	
1	THIS	07.57	
2	IT'S	07.54	
3	WHAT	07.27	
4	JUST	07.20	
5	DO	07.00	
6	BUT	06.94	
7	WELL	06.52	
	UH	06.44	
9	ON	06.35	
0	HE	06.29	

#### 2. VOCABULARY LEARNING

## **USING WORD LISTS**

CHECK
THE MOST FREQUENT
WORDS
IN THE SPECIALIZED
CEOLO8 LETTERS CORF

N	Word	Freq.	%
1	THE	25007	4.382518291
2	AND	21487	3.765632391
3	TO	17650	3.093191862
4	#	17441	3.056564331
5	IN	15873	2.781769514
6	OF	15834	2.774934769
7	OUR	15618	2.737080336
8	WE	12309	2.15717268
9	Α	9250	1.621077895
10	FOR	6254	1.096023917
11	THAT	5032	0.881866336
12	AS	4159	0.728871644
13	WITH	3995	0.700130403
14	IS	3990	0.699254155
15	ARE	3763	0.659471989
16	ON	3718	0.651585698
17	YEAR	3060	0.536270082
18	THIS	3050	0.534517586
19	HAVE	3043	0.533290803
20	WILL	2828	0.495611697
21	BY	2638	0.46231389
22	BUSINESS	2471	0.433046848
23	MORE	2274	0.398522288
24	NEW	2065	0.361894667
25	FROM	2033	0.356286615
26	AT	1901	0.333153397
27	GROWTH	1795	0.314576745
28	BE	1780	0.311947972
29	AN	1763	0.308968693
30	COMPANY	1709	0.299505085

#### 2. VOCABULARY LEARNING

## **USING WORD LISTS**

CHECK
THE MOST FREQUENT
WORDS
IN THE SPECIALIZED
CEOLO8 LETTERS CORP

ARE THEY SPECIALIZED OR NON-SPECIALIZED WORDS?

WHAT CAN YOU
CONCLUDE THEN?
IS THE TEXT SPECIALIZE
OR NON-SPECIALIZED?

N	Word	Freq.	%
1	THE	25007	4.382518291
2	AND	21487	3.765632391
3	TO	17650	3.093191862
4	#	17441	3.056564331
5	IN	15873	2.781769514
6	OF	15834	2.774934769
7	OUR	15618	2.737080336
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14	IS	3990	0.699254155
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18	THIS	3050	0.534517586
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20	WILL	2828	0.495611697
21	BY	2638	0.46231389
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26	AT	1901	0.333153397
27	GROWTH	1795	0.314576745
28	BE	1780	0.311947972
29	AN	1763	0.308968693
30	COMPANY	1709	0.299505085

# 3. VOCABULARY LEARNING THROUGH COLLOCATION

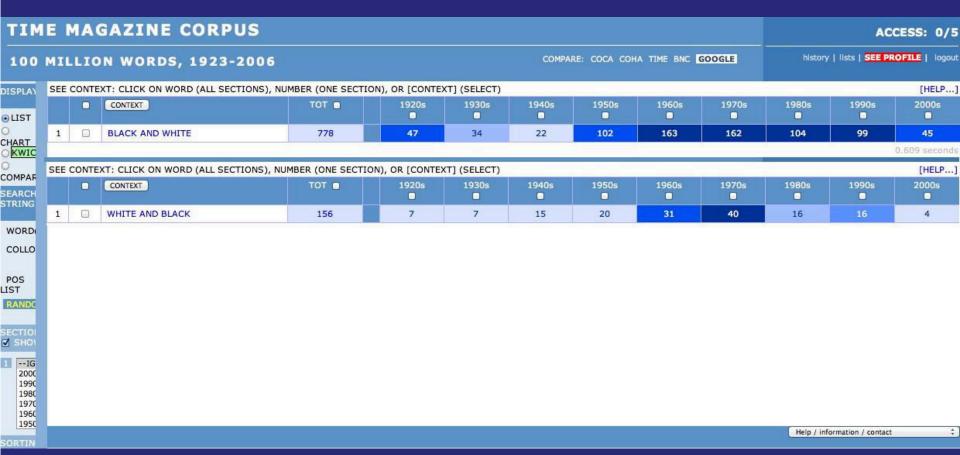
Learning information about the context of use for particular words / phrases through the company a word keeps

Black & White or White & Black?
MAKE a mistake or DO a mistake?

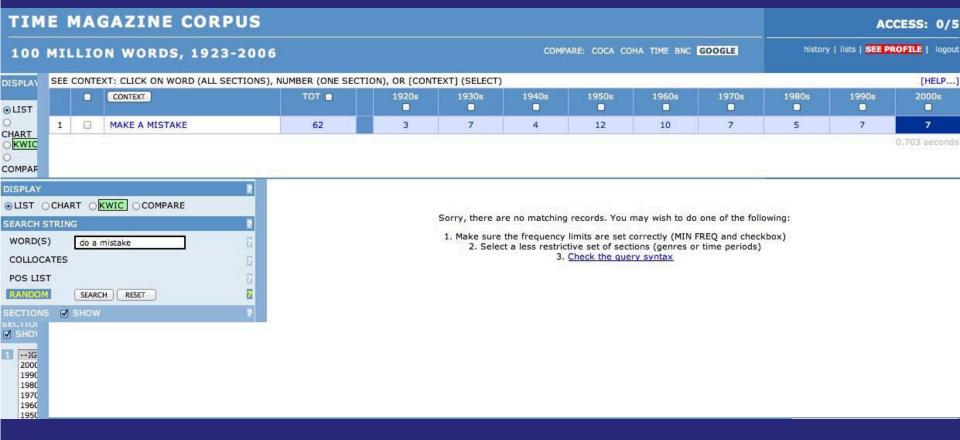
Check them in the Time Magazine Corpus http://corpus.byu.edu/time/



# 3. VOCABULARY LEARNING THROUGH COLLOCATION



# 3. VOCABULARY LEARNING THROUGH COLLOCATION



# 4. VOCABULARY LEARNING THROUGH SEMANTIC PROSODY

Semantic prosody is the "consistent aura of meaning with which a form is imbued by its collocates" (Louw 1993).

What is the SEMANTIC PROSODY of the verb undergo?



which truly valued women would have had to undergo a deep and important change of heart. [p] present a composition portfolio and undergo a viva-voce examination. The portfolio must calves. [p] [p] Cows kept for milk production undergo a continuous cycle of pregnancies, producing Other studies have shown that families who undergo a period of constant day-to-day hassles are Erdington estate. [p] Mr Forbes was forced to undergo an emergency operation to remove a blood on contact with air. Even a full bottle will undergo chemical changes if left in direct light. moderately advanced glaucoma. They would then undergo further tests to confirm the diagnosis and bright and cheerful" in hospital, where he'll undergo a brain scan before leaving on Monday. [h] [p] Once a year each operative had to undergo the most rigorous test of all -- to pit his arriving in the other world still has to undergo many tribulations before being able to Most alternative practitioners have to undergo lengthy training, and it would be just as concrete forms of representation themselves undergo a sort of intrinsic mystical transformation with Joni when she saw what Joni had to undergo, day after day, week after week. Jackie, [p] Before joining the Host company, managers undergo training of up to three weeks 'to update and against the emotional roller-coaster he would undergo if he launches an appeal. [p] Leeson, who Not every company car driver needs to undergo such training, however. We estimate that also tighten tests that all AC wines have to undergo and remove the interested parties from the with parents so that they can ask a student to undergo analysis if there are well-founded of the 15,000-ton Severodvinsk class will undergo trials within the next two years. [p] The unchanged for 14 years. [p] Yet the LPC is to undergo a review by the Law Society, with relevant September may be an odd month during which you undergo a crisis of confidence or find yourself in the hit film Mermaids, was challenged to undergo the change for the Trading Places charity. distressing disease. [p] Many of them undergo disfiguring surgery and every year 15,000 British-born star has been told she must now undergo a course of exhausting chemotherapy. [p] latter, the current storylines will have to undergo a lobotomy if they're to sustain us for a know that, in time, my daughters will have to undergo tests. But you can only hope if they have with three days in hospital where the women undergo a one-and-a-half hour breast enlargement sport safer. One is that every fighter must undergo a mandatory yearly brain scan - and if then a stock with a beta of, say, 0.8 should undergo a change of around 8 (10 [0] 0.8 8). Now you experience a high of euphoric energy and can undergo a transcendent, positive change in attitude to go, he would walk through the living room, undergo the usual shouts and insults, and pretend to doctoral degree in Spanish universities had to undergo, and teases them guite without mercy. This turns out that the woman really didn't want to undergo sterilization, but did so at the insistence other STL s, anyone with such growths should undergo thorough medical evaluation to check for the family adjustment and adaptation. Families undergo repeated cycles of adjustment/crisis/ to Milledgeville to live with her mother, undergo treatment, raise peacocks, and write. The

which truly valued women would have had to undergo a deep and important change of heart. [p]

present a composition portfolio and undergo a viva-voce examination. The portfolio must
calves. [p] [p] Cows kept for milk production undergo a continuous cycle of pregnancies, producing
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moderately advanced glaucoma. They would then undergo further tests to confirm the diagnosis and
bright and cheerful" in hospital, where he'll undergo a brain scan before leaving on Monday. [h]

[p] Once a year each operative had to undergo the most rigorous test of all -- to pit his

### Semantic prosody: NEGATIVE

# Reason: UNDERGO usually co-occurs with words expressing unpleasant situations

(cf. examination, test, training, treatment, evaluation, ...)

latter, the current storylines will have to undergo a lobotomy if they're to sustain us for a know that, in time, my daughters will have to undergo tests. But you can only hope if they have with three days in hospital where the women undergo a one-and-a-half hour breast enlargement sport safer. One is that every fighter must undergo a mandatory yearly brain scan - and if then a stock with a beta of, say, 0.8 should undergo a change of around 8 (10 [o] 0.8 8). Now you experience a high of euphoric energy and can undergo a transcendent, positive change in attitude to go, he would walk through the living room, undergo the usual shouts and insults, and pretend to doctoral degree in Spanish universities had to undergo, and teases them quite without mercy. This turns out that the woman really didn't want to undergo sterilization, but did so at the insistence other STL s, anyone with such growths should undergo thorough medical evaluation to check for the family adjustment and adaptation. Families undergo repeated cycles of adjustment/crisis/ to Milledgeville to live with her mother, undergo treatment, raise peacocks, and write. The

### **FURTHER EXERCISES**

- collocation
- strong tea

The tea is strong

colligation

```
in <quantifier> cases
```

some several many most

- semantic preference
- semantic prosody

seek <relief>

help advice suppor asylum

. . . . .

cause <unpleasant events>

problem death damage concern