

# Linguistic Ordering of Social Groups is a Cue to Relative Relevance

Selin Kesebir

London Business School

Gender is more richly represented in language than any other social category

→ Lexical gender:

kinship terms

personal pronouns

social roles

occupations

proper names

Various uses of lexical gender have been identified as gender-biased language

The masculine generic

*he or she*  
*man and woman*  
*Adam and Eve*  
*Romeo and Juliet*  
*Tarzan and Jane*  
*Hansel and Gretel*

- 1) What are the order patterns in conjoined phrases with gender?
- 2) What factors explain these regularities?
- 3) How does word order impact audiences?

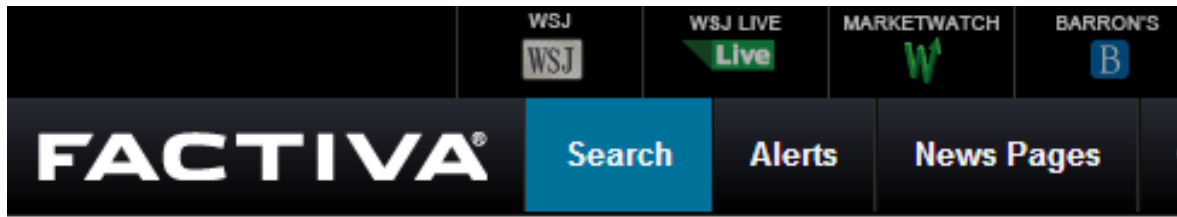
Prior research suggests  
primacy goes together with:

- Agency
- Power/Status

→ Relevance/Centrality

## Prediction:

*The order of lexically gendered words in a conjoined phrase should be a function of the relative relevance of the two genders in a given context*



Free Text Search

Search Form

- *woman/man*
- *girl/boy*
  
- *businesswoman/businessman*
- *congresswoman/congressman*
- *chairwoman/chairman*
- *spokeswoman/spokesman*

+ PLURALS



Free Text Search

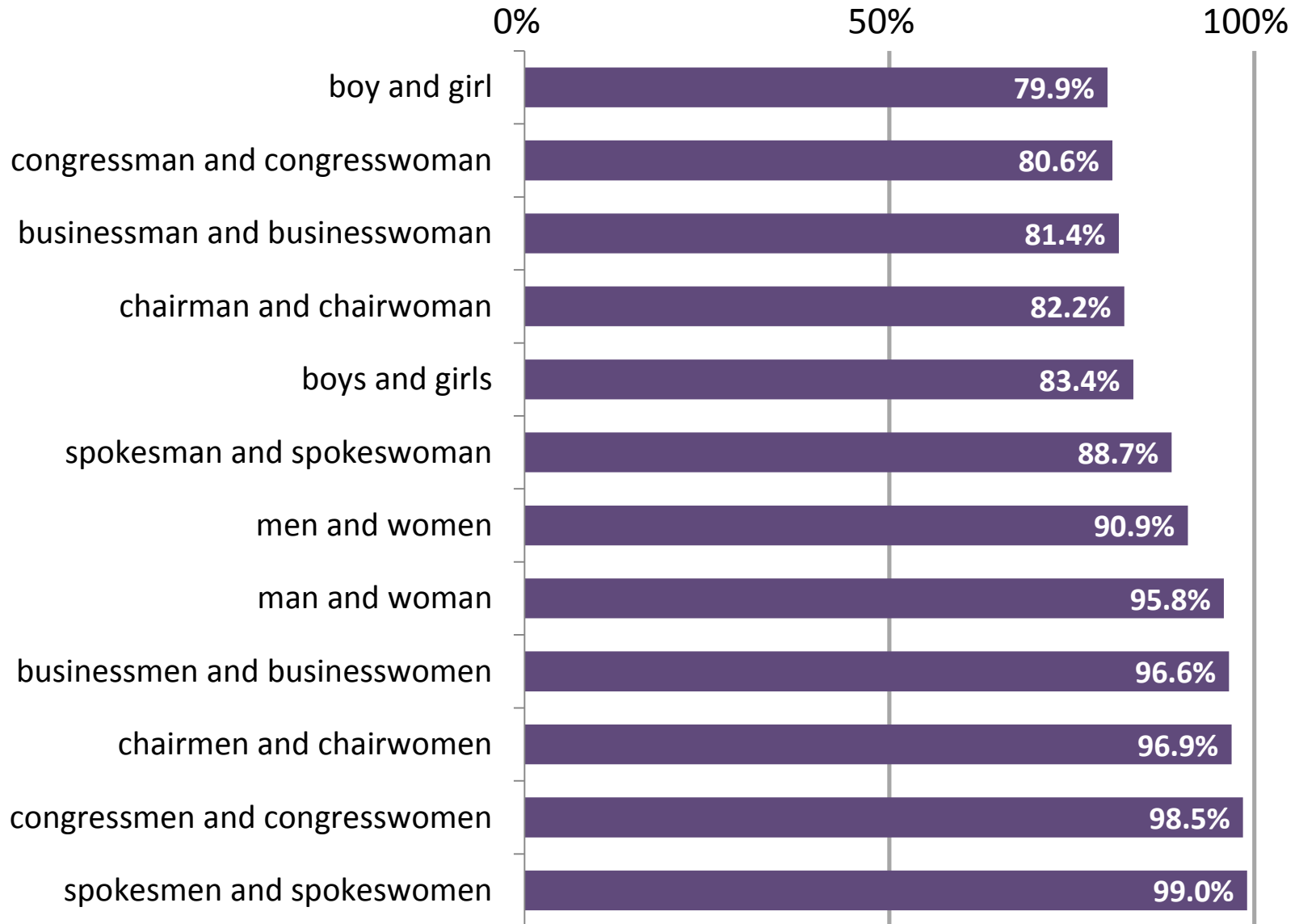
Search Form

- *mother/father*
- *grandmother/grandfather*
- *aunt/uncle*
- *daughter/son*
- *sister/brother*
- *niece/nephew*

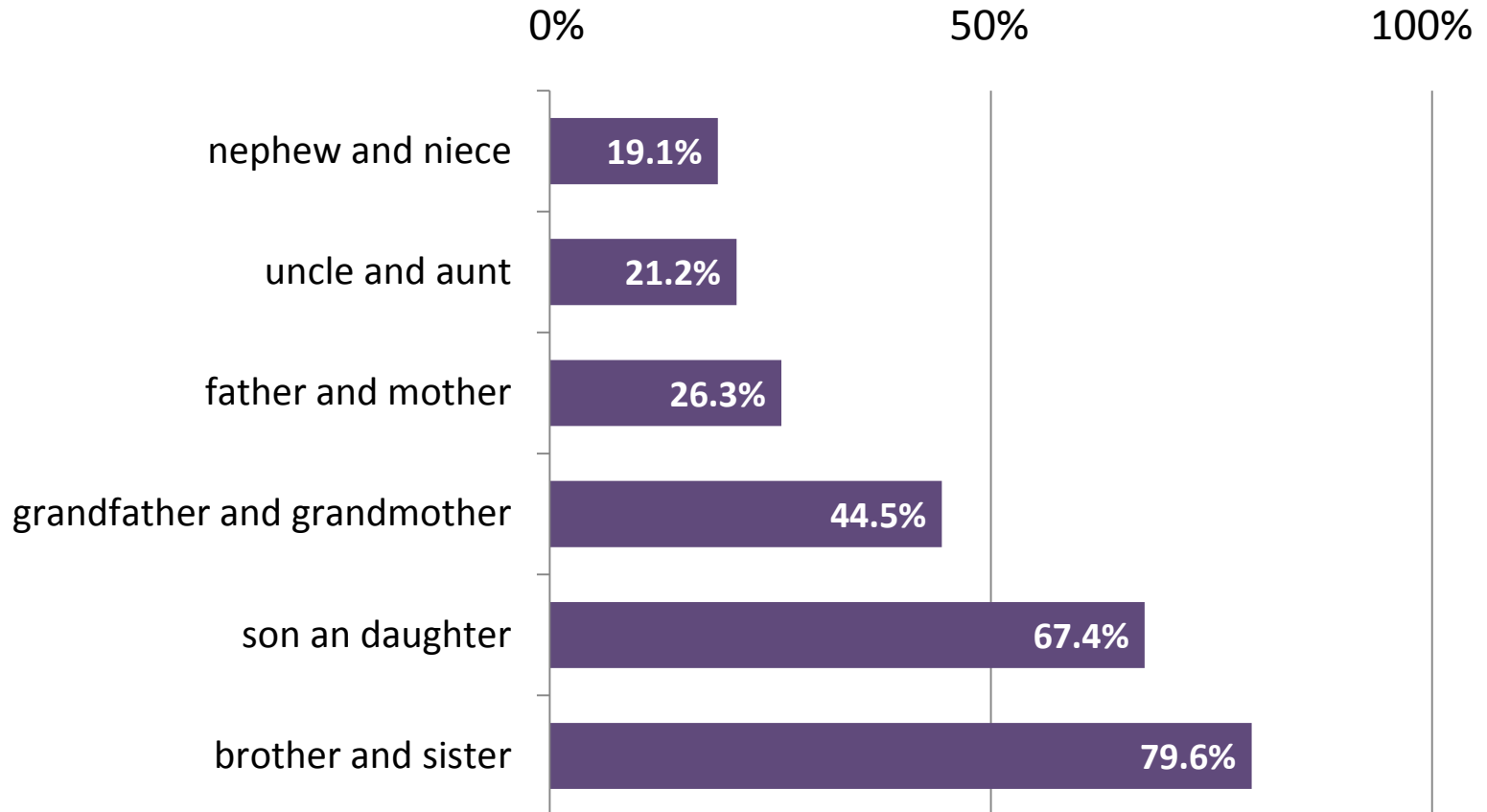
# Ratio of male-first phrases

$$= \frac{N(\text{"man and woman"})}{N(\text{"man and woman"}) + N(\text{"woman and man"})}$$

# % of Male-First Constructions



# % of Male-First Constructions



	<b>AVERAGE</b>	<b><i>SD</i></b>
Non-kinship words	89.5%	7.7%
Kinship words	43.0%	25.6%

Welch t-test = 4.360,  $p = .006$



**1931-1970**

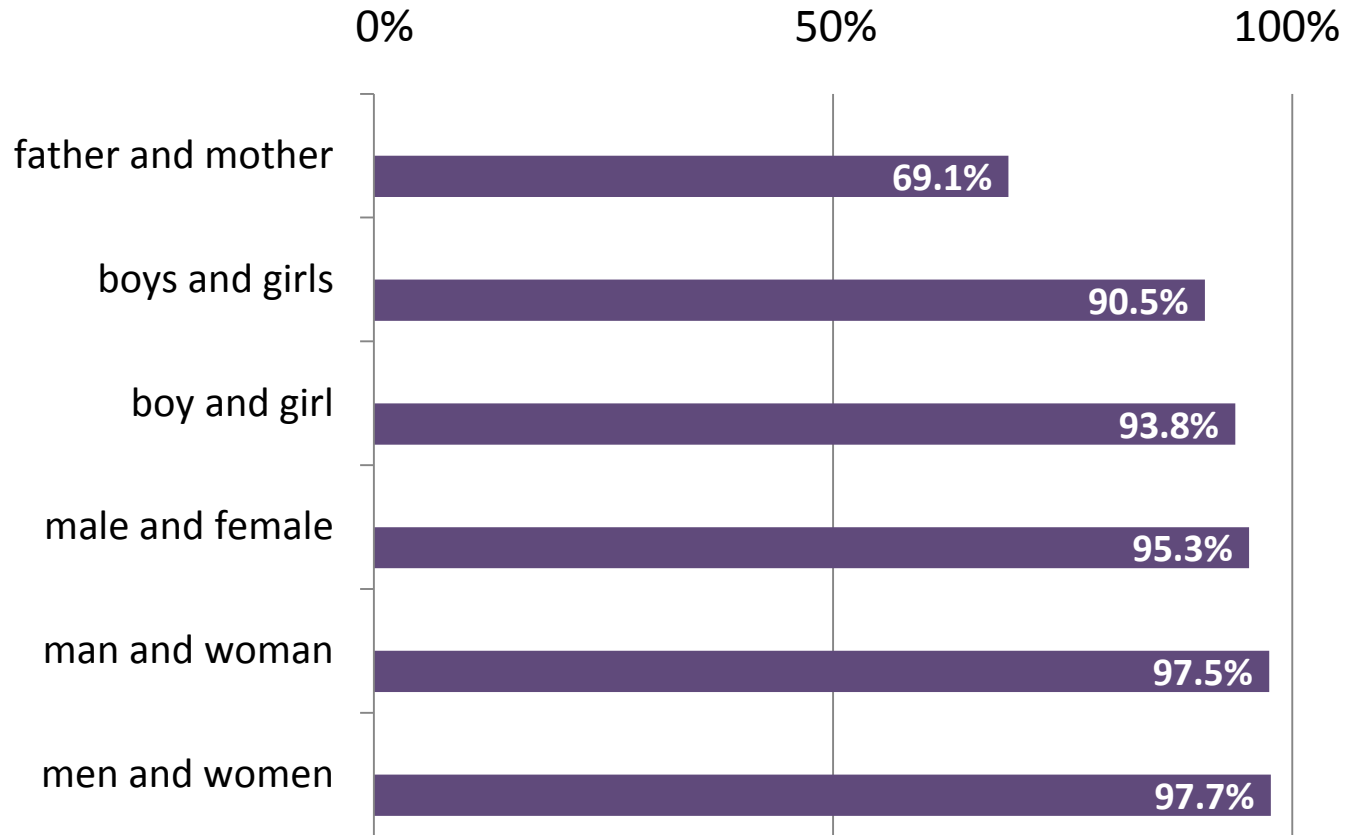
**1971-2010**



- *woman/man*
- *women/men*
- *girl/boy*
- *girls/boys*
- *female/male*
  
- *mother/father*

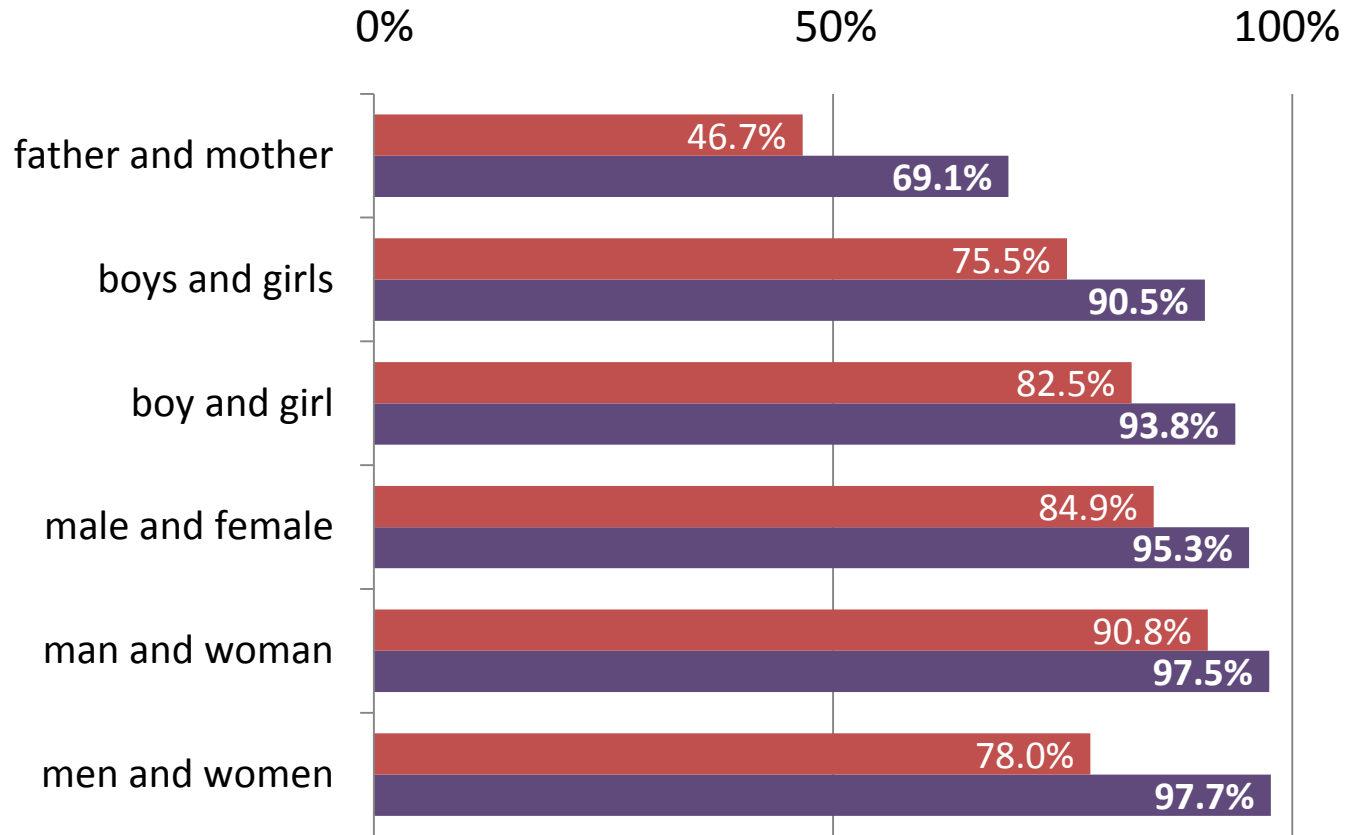


# % of Male-First Constructions 1931-1970





# % of Male-First Constructions 1931-2010







# NON-KINSHIP WORDS

## % of Male-First Constructions

PERIOD	MEAN	<i>SD</i>
1931-1970 ( <i>N</i> = 42)	95.5%	2.8%
1971-2010 ( <i>N</i> = 46)	82.6%	6.0%

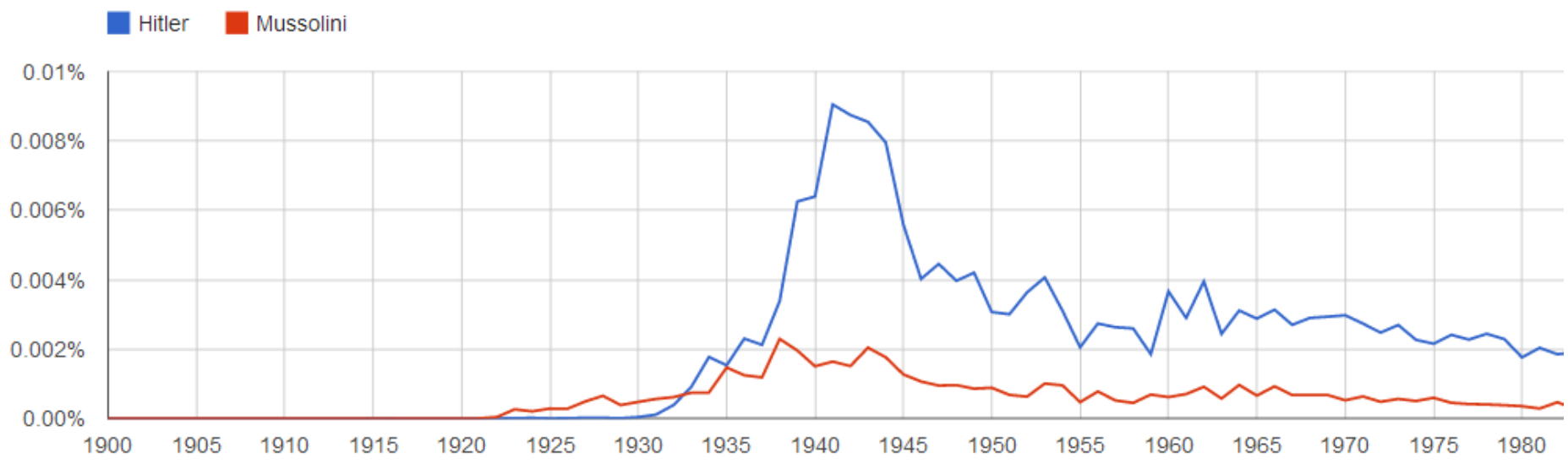
Paired-samples- $t(41) = 14.11, p < 0.0001$

# Google books Ngram Viewer

Graph these [case-sensitive](#) comma-separated phrases:

between  and  from the corpus  with smoothing of .

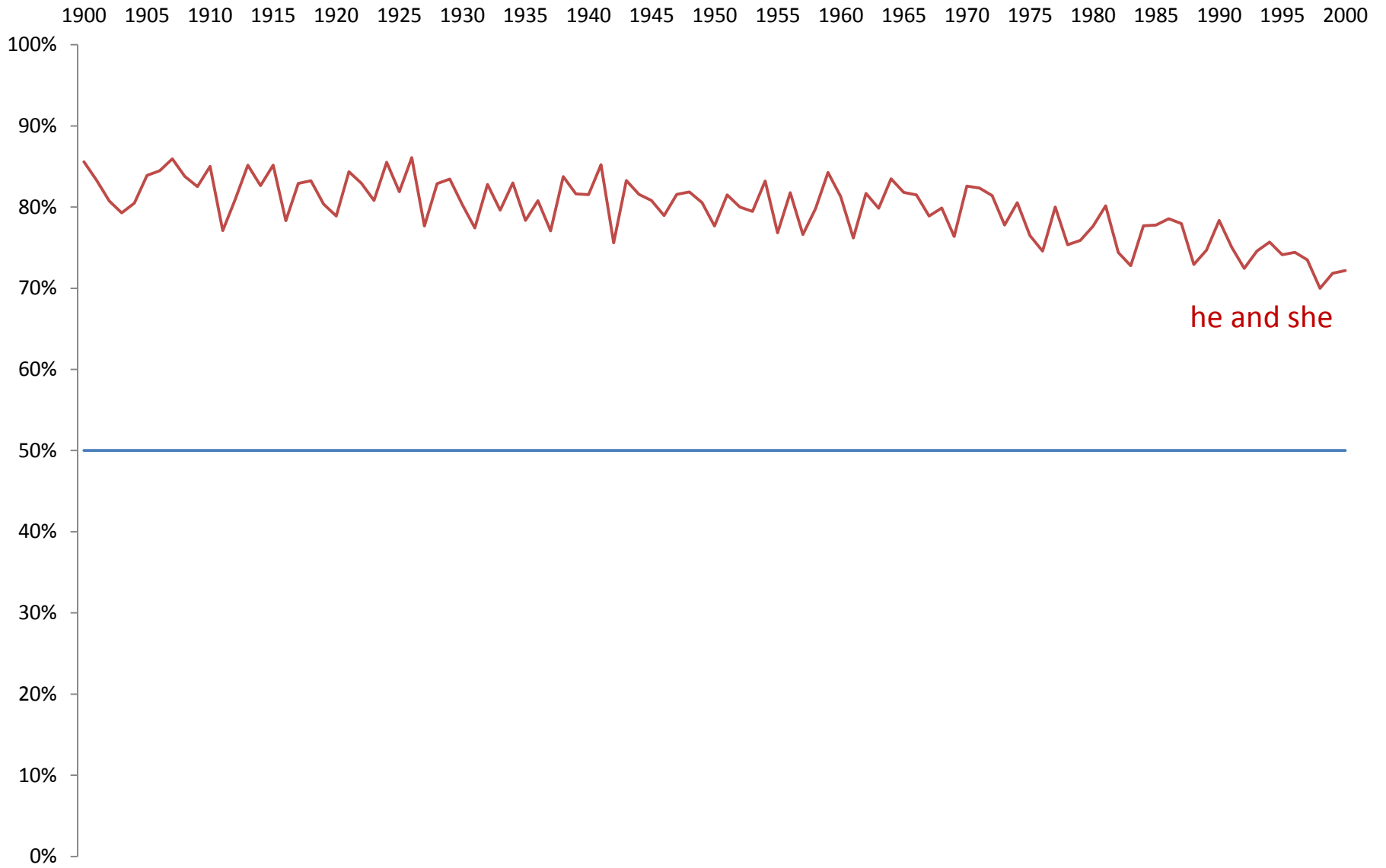
[Search lots of books](#)



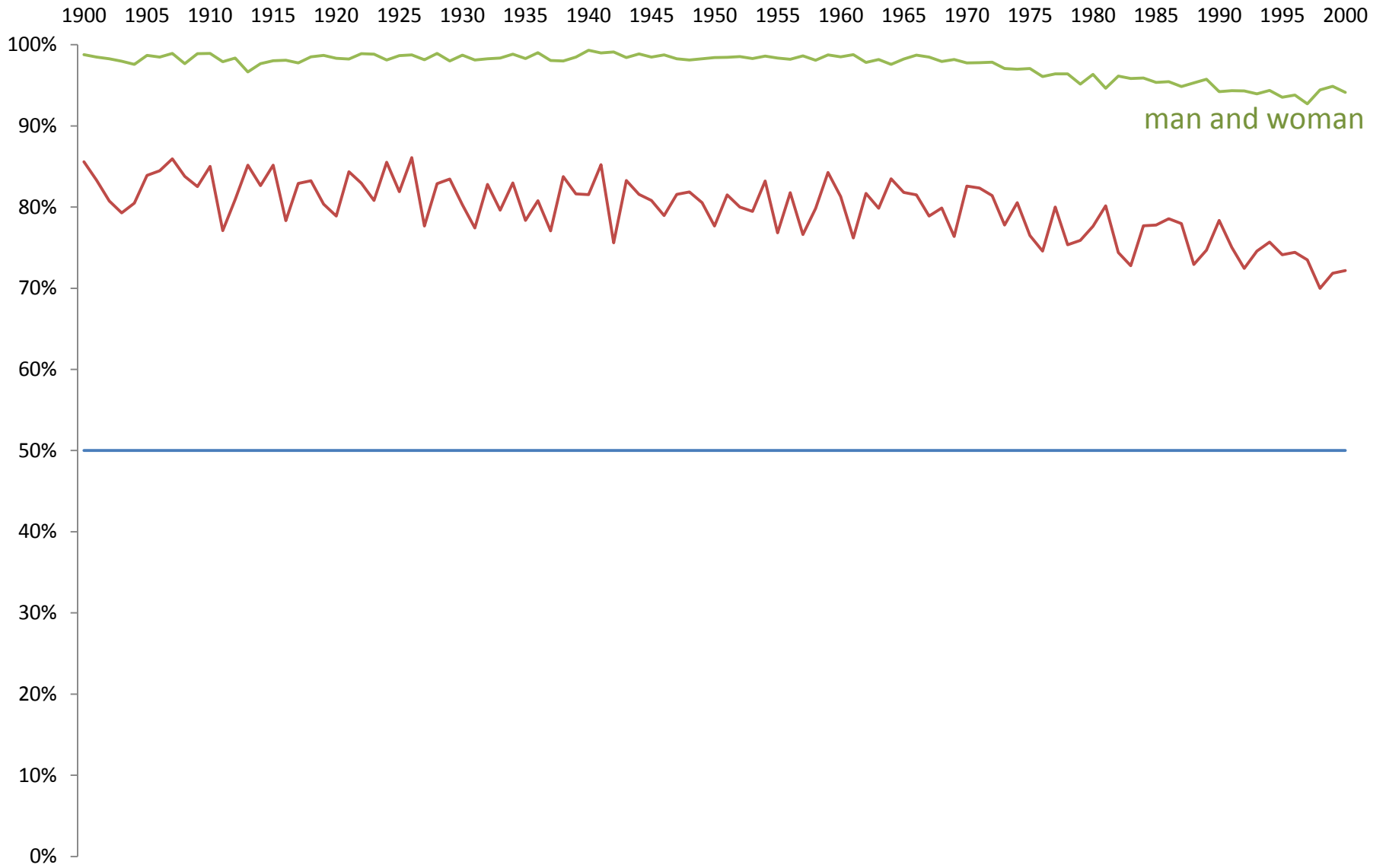
# Google books Ngram Viewer

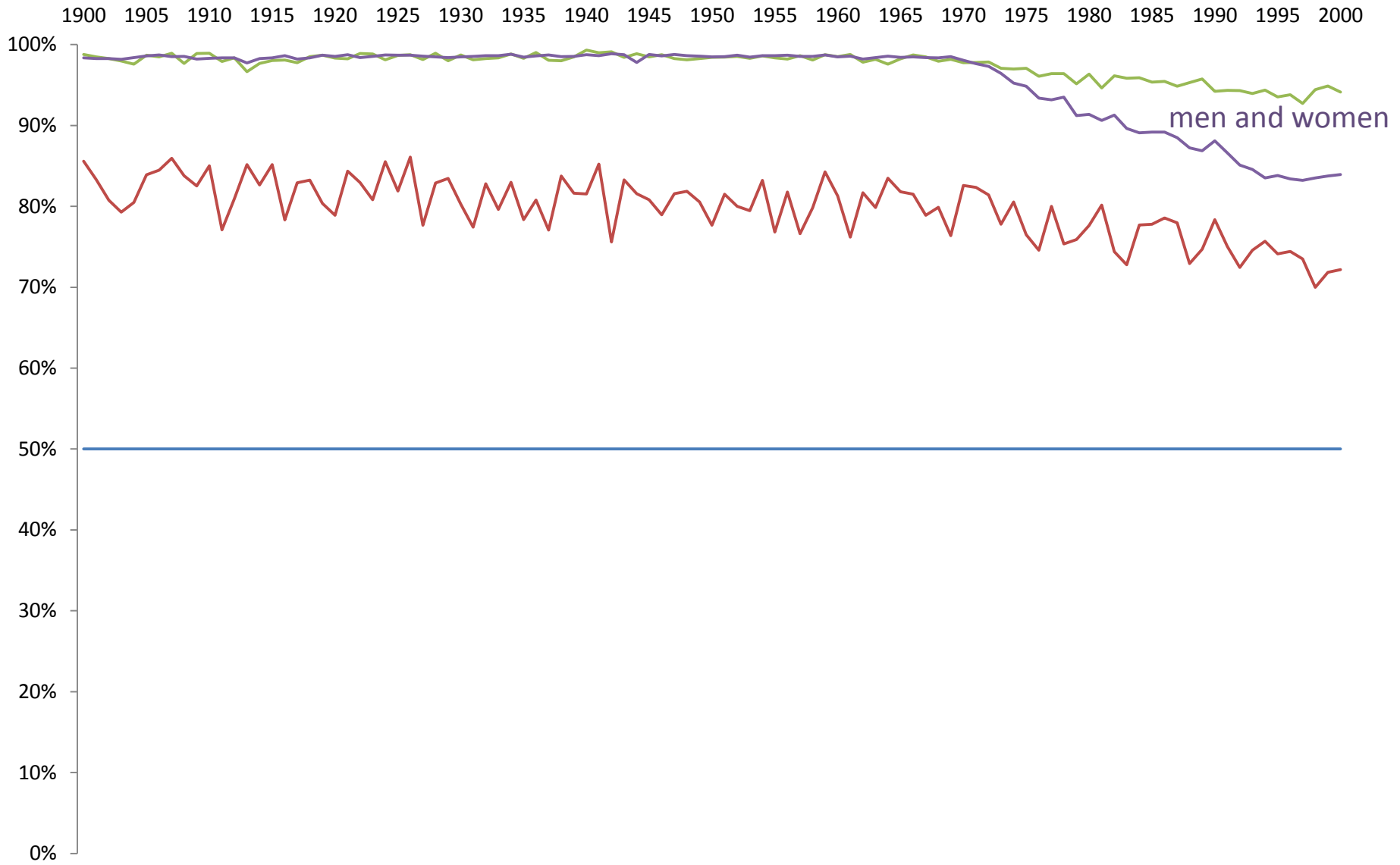
1900-2000

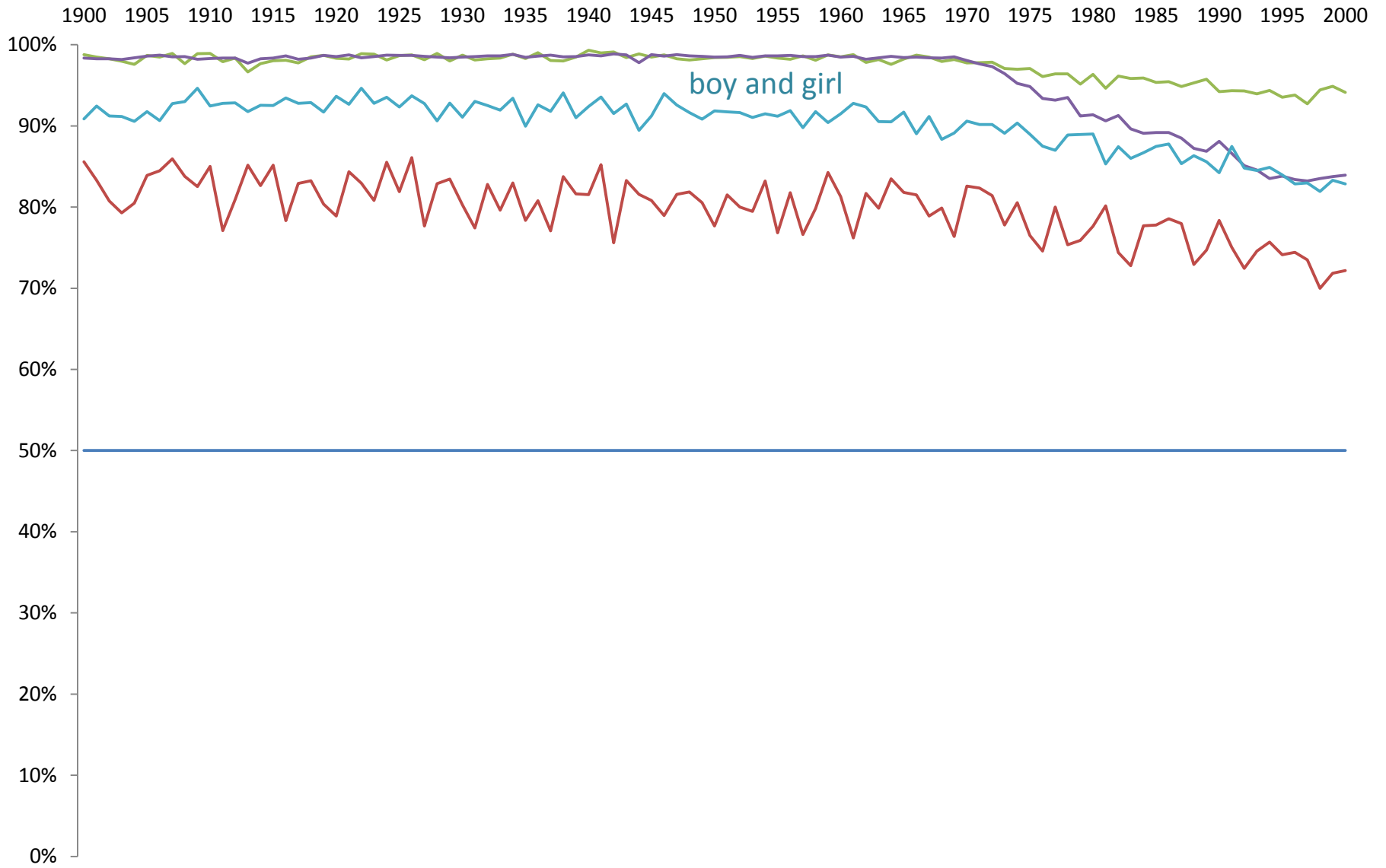
GENERAL	KINSHIP
he and she	brother and sister
man and woman	son and daughter
men and women	father and mother
boy and girl	uncle and aunt
boys and girls	grandfather and grandmother
	nephew and niece

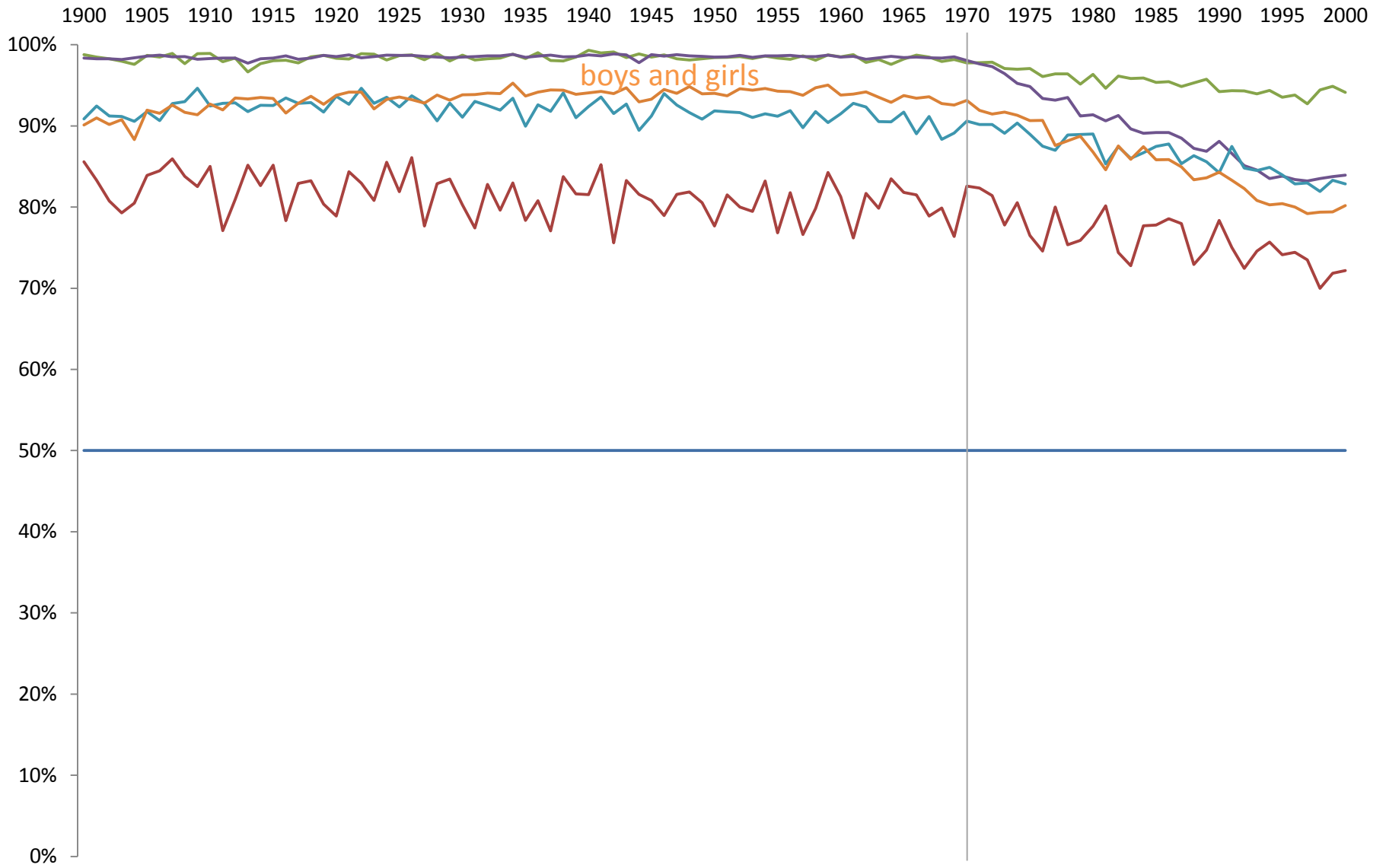


he and she











# Non-kinship Words

Word Pair	Correlations with Year	
	1900-1970	1971-2000
boy and girl	-0.43	-0.91
boy or girl	(-0.12)	-0.89
boys and girls	0.61	-0.97
boys or girls	-0.38	-0.92
he and she	-0.35	-0.72
he or she	(-0.04)	-0.89
man and woman	(-0.03)	-0.89
man or woman	-0.45	-0.92
men and women	(-0.18)	-0.98
men or women	(-0.05)	-0.95

1900-2000

## % of Male-First Constructions

PERIOD	MEAN	<i>SD</i>
Non-kinship word pairs	91.7%	5.8%
Kinship word pairs	74.2%	12.2%

What effect does word order have?

The following has been written by a news reporter who covers local protests against a power plant proposal in a Delaware town:

The proposal of a 279-megawatt natural-gas power plant has drawn much opposition from the townspeople. Some of the town's **men and women** are out on the streets, talking to the locals individually about what they see as the dangers of the proposed facility. Yesterday, hundreds of protesters have staged a demonstration in front of the town hall. These **men and women** are mainly worried about pollution and ecological damage. They want the township Board of Supervisors to vote against the proposal.

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Based on your impression, which group is playing a more central role in the organized protests?

- Women
- Men

	% choosing “women”	% choosing “men”
“men and women”	34.1%	65.9%
“women and men”	70.7%	29.3%

$$\chi^2(1) = 11.002, p < .001$$

The following has been written by a high school sophomore about her athletic activities:

"I try hard to give my best in tennis practice. My father and mother have met the coach last week. The coach told them that I was making steady progress and had a great attitude, but also some lingering weaknesses. My father and mother told me afterwards that they want me to work on my weaknesses, but not worry too much about them, because enjoying the game is important too."



The following has been written by a high school sophomore about her athletic activities:

"I try hard to give my best in tennis practice. My mother and father have met the coach last week. The coach told them that I was making steady progress and had a great attitude, but also some lingering weaknesses. My mother and father told me afterwards that they want me to work on my weaknesses, but not worry too much about them, because enjoying the game is important too."

Based on your impression, who is more involved in this student's tennis life?

- Her mother
- Her father

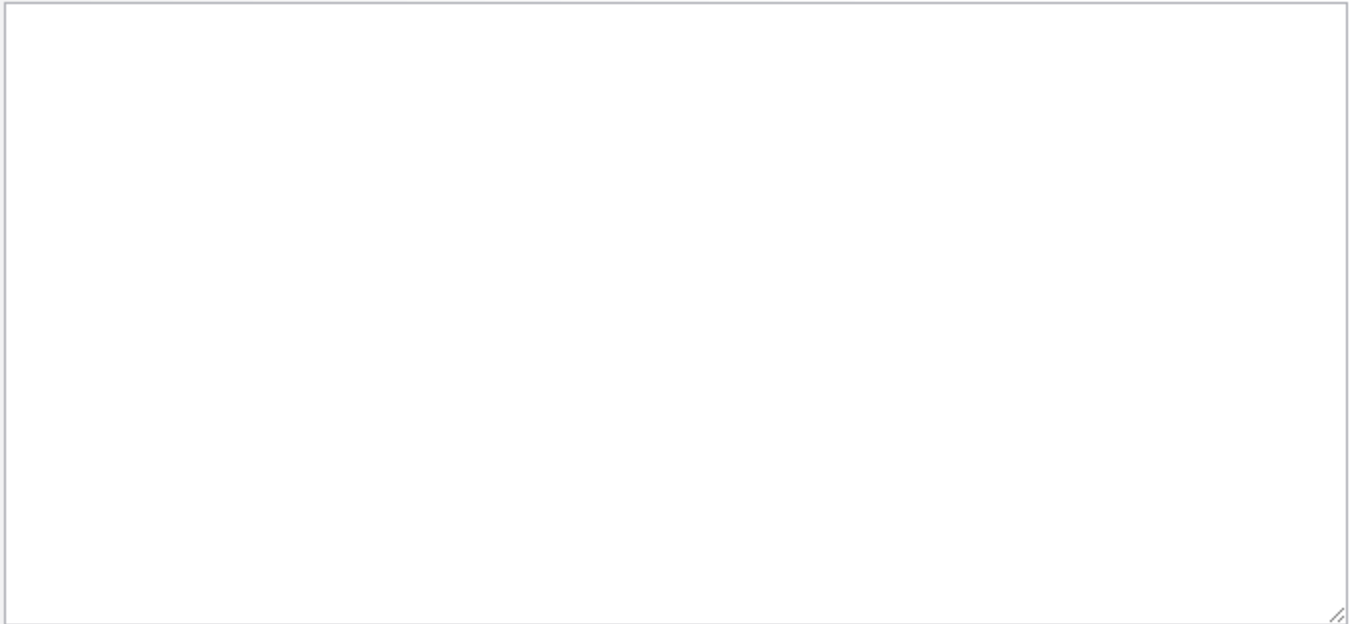
	% choosing “her mother”	% choosing “her father”
“father and mother”	18.4%	81.6%
“mother and father”	53.5%	46.5%

$\chi^2(1) = 10.64, p = .001.$

YOUR TOPIC:

Please write a story about a businesswoman and a businessman.

You can write any story that you want, as long as it involves a businesswoman and a businessman.

A large, empty rectangular box with a thin black border, intended for writing a story. The box is positioned below the instructions and occupies the lower half of the page. There is a small diagonal slash mark in the bottom right corner of the box.

# Coding: Who is more central to the story?

write a story about ...	Centrality
... a businesswoman and a businessman	1.97
... a businessman and a businesswoman	2.18
TOTAL	2.07

$p = 0.04$   
Cohen's  $d = 0.34$

- 1 = *businesswoman more central*
- 2 = *both equally central*
- 3 = *businessman more central*

# Count of References

write a story about ...	Reference to a Female	Reference to a Male	Difference
... a businesswoman and a businessman	4.48%	3.96%	$p = .02$
... a businessman and a businesswoman	3.04%	3.84%	$p < .001$
TOTAL	3.82%	3.90%	n.s.

Word order can be a means of  
transmitting gender beliefs

# 5 not-to-miss articles from November

## Equality

["The Role of Language in the Gender Gap »](#)

by Selin Kesebir (*Knowledge Insead*)

In the midst of the French debate on inclusive writing, the London Business School's Selin Kesebir explains how words really do play a key role in gender inequalities. His research demonstrates in particular how the use of generic masculine words alters our perceptions of jobs and in this way reinforces gender stereotypes.



- Agency
  - Power/Status
- Relevance/Centrality

# Google Books Ngram Viewer

Graph these comma-separated phrases:   case-insensitive

between  and  from the corpus  with smoothing of  .



with Jean-Pierre Benoît

# Google Books Ngram Viewer

Graph these comma-separated phrases:   case-insensitive

between  and  from the corpus  with smoothing of  [Search lots of books](#)





marriage "men and women"



All

Images

News

Videos

Shopping

More

Settings

Tools

About 9,080,000 results (0.56 seconds)



marriage "women and men"



All

Images

Videos

News

Shopping

More

Settings

Tools

About 3,770,000 results (0.51 seconds)

# Google Search Hit Ratios

CONTEXT	RATIO
workplace harassment	1.8
marriage	2.0
sexual harassment	2.1
equality	2.2
<b>BASELINE:</b> "men and women"/"women and men"	2.5
workplace	2.8
consumers	4.1
employment	4.8
crime	6.1

# IDEAS

- Order in conjoined phrases is a function of relevance
- Word order choices have consequences for how we think about different groups

**THANK YOU**