

# How your native language shapes your world

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# Sapir-Whorf hypothesis

The principle of **linguistic relativity** (colloquially known as the Sapir-Whorf hypothesis) holds that the structure of a language affects the ways in which its respective speakers conceptualize their world, or otherwise influences their cognitive processes.

# Experiment 1

[http://\[link no longer available\]](#)

# Grammatical gender

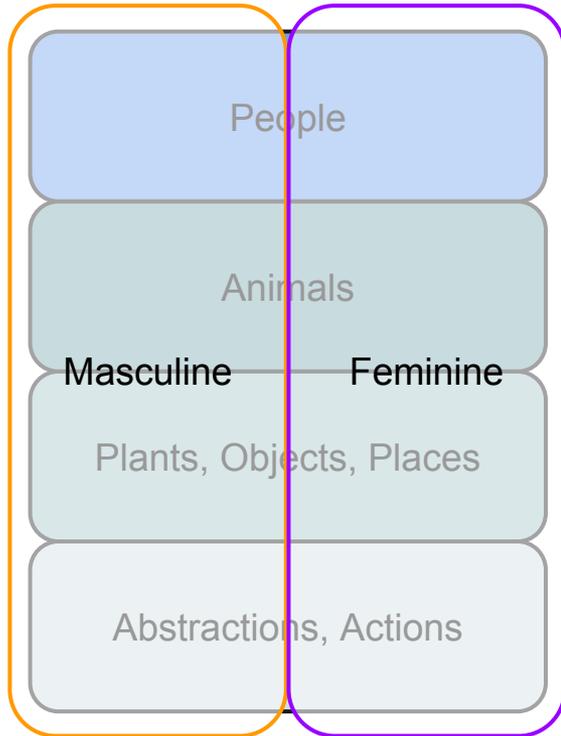
People

Animals

Plants, Objects, Places

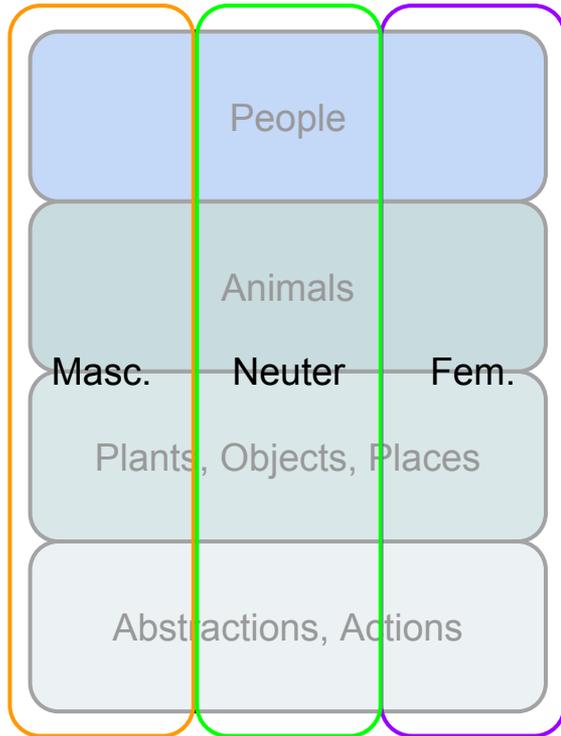
Abstractions, Actions

# Grammatical gender



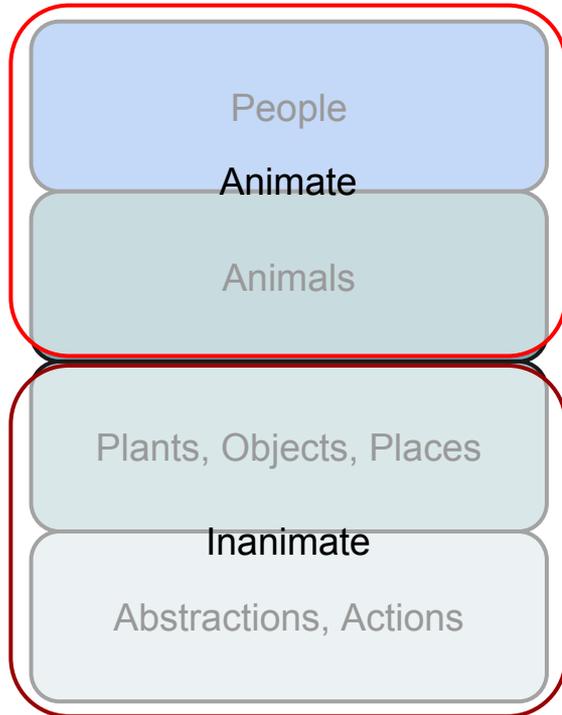
Example languages: French, Arabic, Hindi, Spanish, Hebrew, Ancient Egyptian...

# Grammatical gender



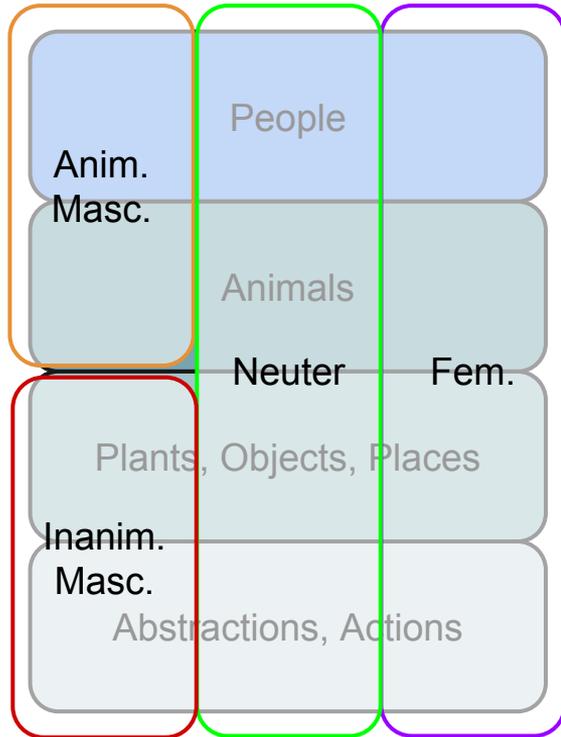
Example languages: German, Icelandic, Latin, Greek...

# Grammatical gender



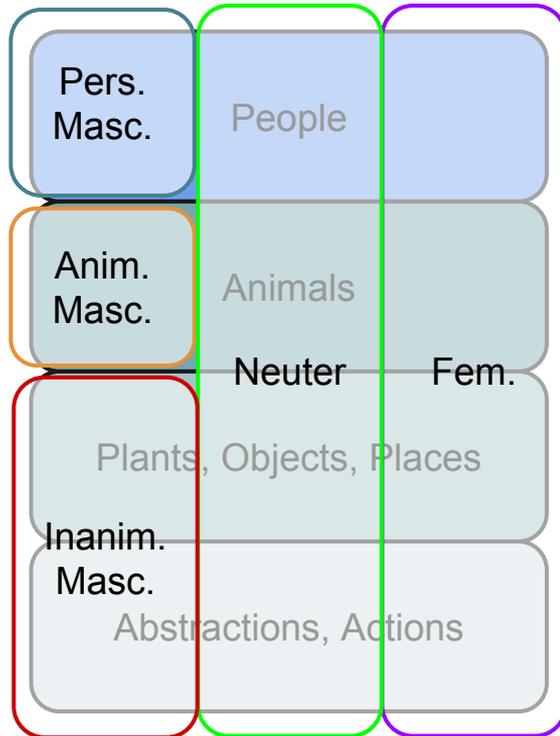
Example languages: Basque, Sumerian, many Native American languages...

# Grammatical gender



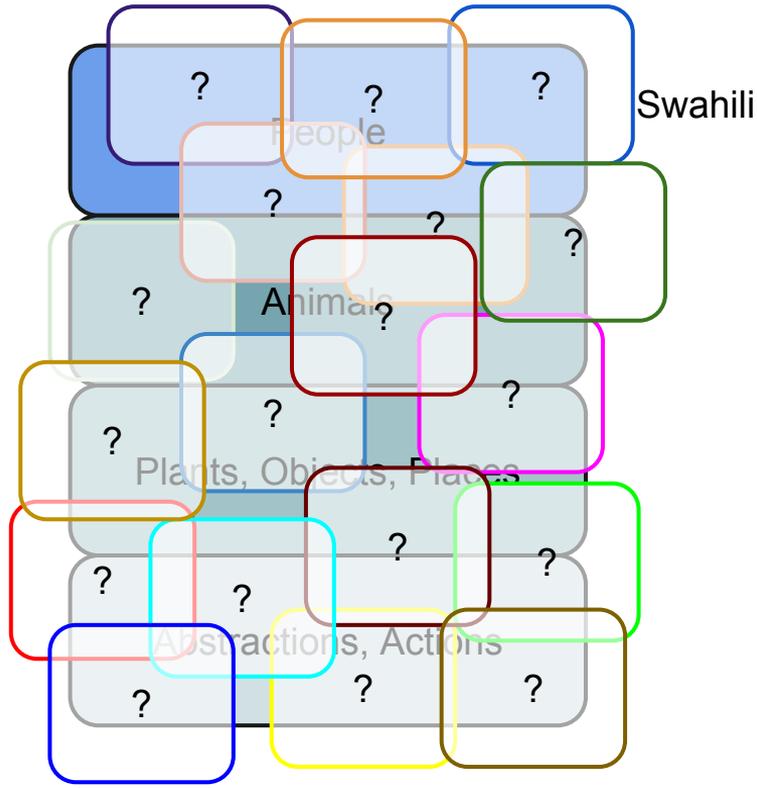
Example languages: Czech and Slovak

# Grammatical gender



Example languages: Polish

# Grammatical gender



# Grammatical gender

L. Boroditsky, L. Schmidt, W. Phillips (2002)

- Compiled a list of 24 nouns that have *opposite genders* in Spanish and German
- Asked groups of native Spanish/native German speakers to describe *images* of those nouns in *English*

# Experiment 1

**Results!**

# Sapir-Whorf Experiments



**German:**

popular, urban, cool, long, famous

**Hindi:**

high, massive, long, grand

**Polish:**

famous, reddish, long

**French:**

Majestic, Structured, Thin

**Italian:**

enormous, magnificent, expensive

# Sapir-Whorf Experiments



**German:**

small, golden, important, shiny, pretty

**Hindi:**

crooked, sharp, designed, textured

**Polish:**

antique, dirty, gold, standard

**French:**

Ancient, Hard, Shiny

**Italian:**

rusty, cheap, usefull, storable

# Sapir-Whorf Experiments



**German:**

beautiful, wide, cold, natural, icy

**Hindi:**

tall, serene, peaceful, ginormous, scenic

**Polish:**

beautiful, scary, cold, ominous, snowy

**French:**

Pointy, Abrupt, Brutal, Stony

**Italian:**

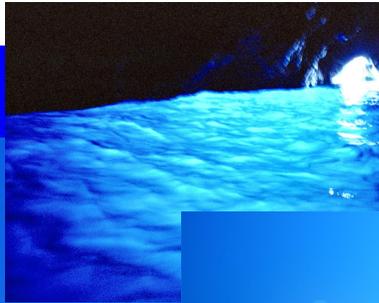
immense, cold, magnificent, remote

# Experiment 2

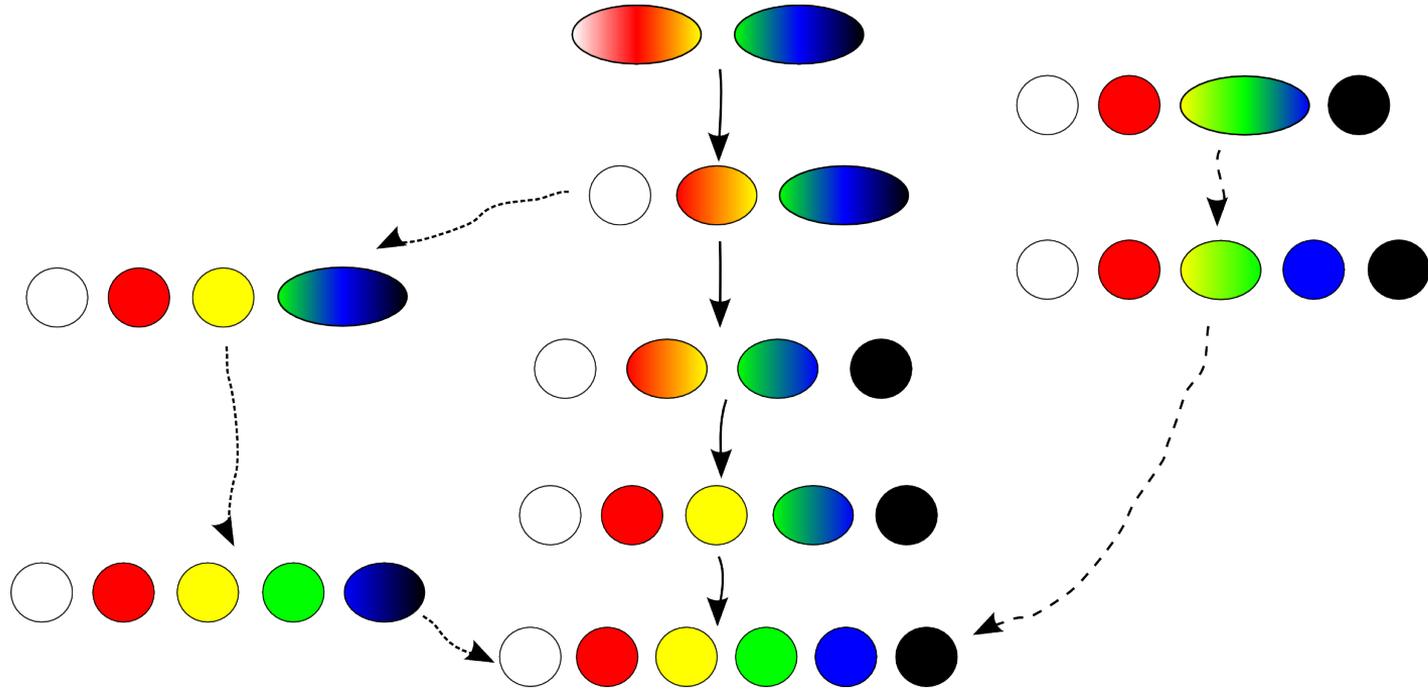
[http://\[link no longer available\]](#)

# Colour perception

青 (Ao)



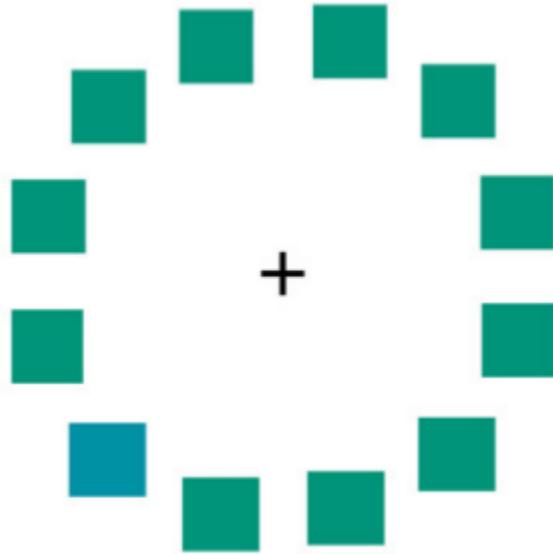
# Colour perception



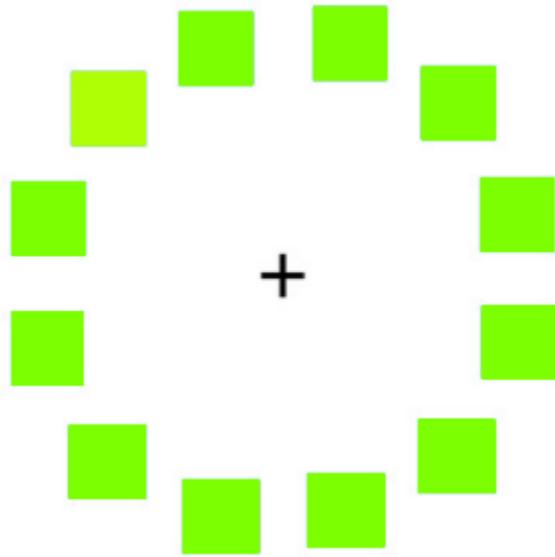
# Colour perception

+

# Colour perception



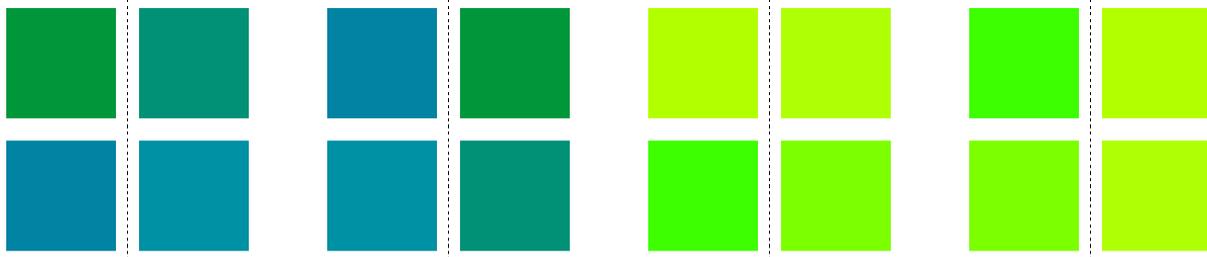
# Colour perception



# Experiment 2

**Results!**

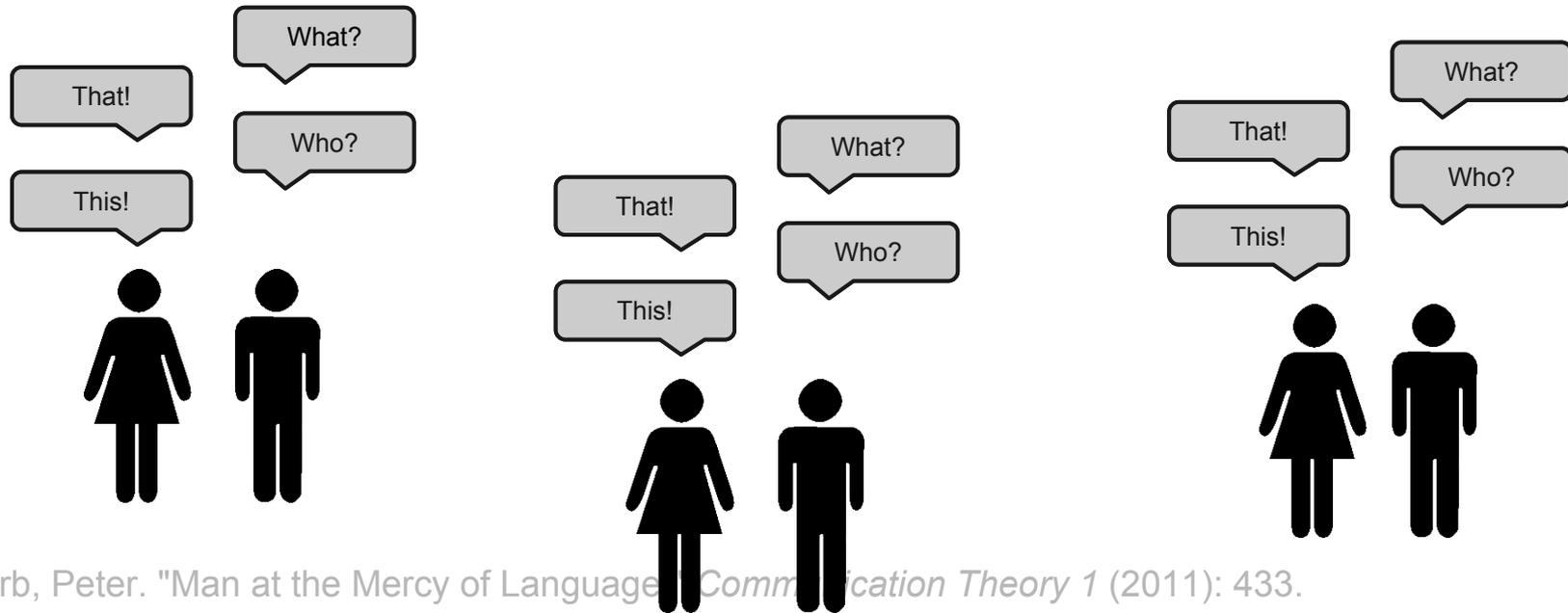
# Sapir-Whorf Experiments



	6521ms	4365ms
8839ms		5499ms
	10554ms	4860ms
	6171ms	4878ms
	5159ms	3104ms
	5200ms	3901ms
	8612ms	7490ms
	2944ms	3317ms
	4546ms	2242ms
	6316ms	4171ms
1561ms		6915ms
	8785ms	13794ms
	3690ms	3598ms
	6447ms	10307ms
	3029ms	4182ms
	2352ms	2097ms

# Decision making

## Peter Farb's (1929–1980) experiment



# Decision making

## Peter Farb's (1929–1980) experiment

### Complete the sentence

“When my wishes conflict with my family's...”

[Japanese] “...it is a time of great unhappiness.”

[English] “...I do what I want.”

“Real friends should...”

[Japanese] “...help each other.”

[English] “...be very frank.”

# Decision making

## M. Keith Chen study

### Strong future tense

**“It is raining”, “It rains”**  
(now, or in general)

**“It will rain”**  
(in the future)

**“It will rain tomorrow”**  
(in the future)

~~**“It rains tomorrow”**~~  
(nope!)

### Weak future tense

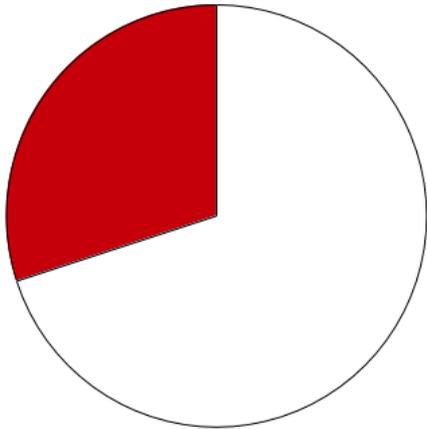
**“~~我会吃米饭~~”** (Wǒ chī mǐfàn) = “I [to eat] rice”  
(now, in the past, or in the future)

**“~~我会吃米饭~~”** (Wǒ huì chī mǐfàn) = “I [to eat] rice”  
(in the future)

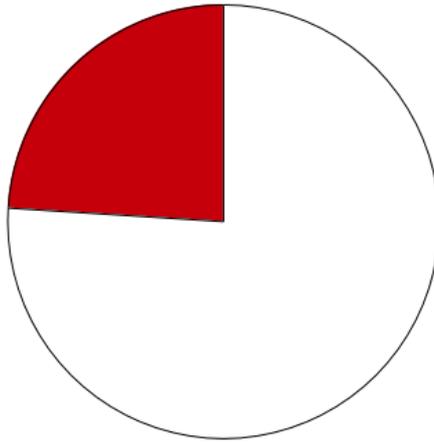
The verb doesn't change, the time-frame must be established via context.

# Decision making

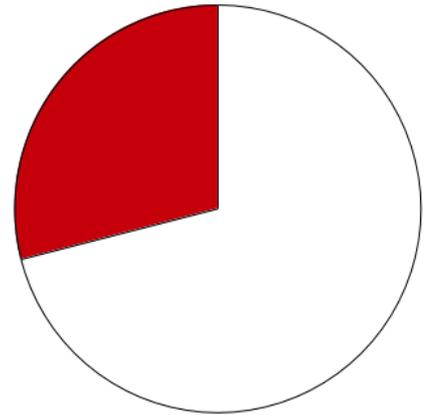
## M. Keith Chen study



+20% more likely to  
save money



+24% more likely to  
avoid smoking



+29% more likely to  
exercise regularly

# Thank you!

## Further reading:

- Bhatia, Aatish. "The Crayola-fication of the World: How We Gave Colors Names, and It Messed with Our Brains" *Wired.com*. 03 June 2012. <<http://www.wired.com/2012/06/the-crayola-fication-of-the-world-how-we-gave-colors-names-and-it-messed-with-our-brains-part-i/>>  
**[RECOMMENDED!]**
- Jackson, Steven B. "Masculine or Feminine? (And Why It Matters)." *Psychology Today: Health, Help, Happiness + Find a Therapist*. 21 Sept. 2012. <<http://www.psychologytoday.com/blog/culture-conscious/201209/masculine-or-feminine-and-why-it-matters>>