

How we learn

The surprising truth about when where and why it happens.

By Benedict Carey

Highlights from the book, cognitive science research, and what it all means for you in learning a language.

Cognitive Science? Clarifies how remembering, forgetting and learning are related. Studies how the brain manages all the sights, sounds and scents of daily life.

The average human brain has, in digital terms, of a **million gigabytes** of storage.

It all began with the Forgetting Curve... Ebbinghaus research 1800s—when something is learned, we forget it very quickly. Lose 50% in the first day or so and almost all of it in a few weeks. BUT, with regular review we can rebuild it and keep it.

Another researcher to Ebbinghaus' findings and created the "Law of Disuse" which says that when things are learned, they will not stay unless used continuously. "Use it or lose it." Idea.

NEW SCIENTIFIC RESEARCH--

Memory actually has **two tendencies** over time: **decay** and **reminiscence**—the bubbling up of facts or words that we don't recall having learning in the first place—strong for photos, drawings, paintings and poetry, with its word-pictures (imagery).

(10 - 24 - 7)

Any memory has two strengths: a **storage strength** and a **retrieval strength**.

Storage strength—a measure of how well we learned something. It builds with study and practice. (10 - helps build storage strength)

Retrieval strength—a measure of how easily a piece of information comes to mind. Also increases with use but declines quickly without reinforcement. (24 - helps build retrieval strength)

• Forgetting is a necessary part of learning, It filters out unneeded info. BUT we need to re-use ~~to~~ to rebuild.

STUDY TIP #1

• Mix it up! Vary study times, locations, methods, etc for better results

Spacing - Spread reviews out, leave break times in between so you start to forget

→ continued on back

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How does spacing my study sessions help me learn better?

Name 3-5 ways to improve my study/review and memorization

Why and how do I vary my studying?

Explain these:

- chunking
- storage strength
- retrieval strength
- fluency illusion

How we learn - continued

With big projects or difficult problem solving.

- Start early
- When you get stuck, take an extended break
- This helps ideas come

Fluency illusion - when you think you know it but you don't.

- What causes it? Re-reading and highlighting only instead of active

- How to avoid:

- Be active ~
- quiz yourself
- work w/ others -
- talk it through

Chunking - break long lists into 7 or so meaningful groups. (Add images!)

Sleep 7-8 hours at night to allow for all sleep cycles when your brain works on what you learned.

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Language Connections

A **cognate** is a **word** that looks the same AND means the same thing in 2 or more languages.

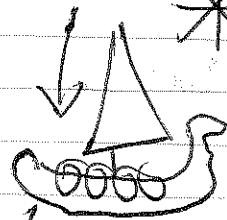
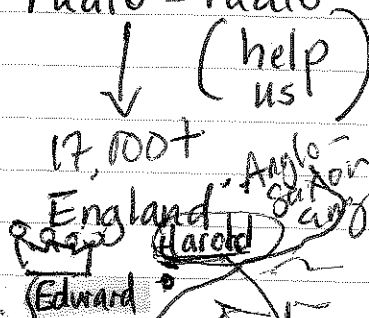
What is a cognate?
(and a false cognate?)

Cognate = mot apparente
éléphant = elephant
cage = cage
radio = radio

False cognate - faux ami

* pain = bread
coin = corner
comment = how (confuse us)

Why are there so many French words in English today?
Explain the history.

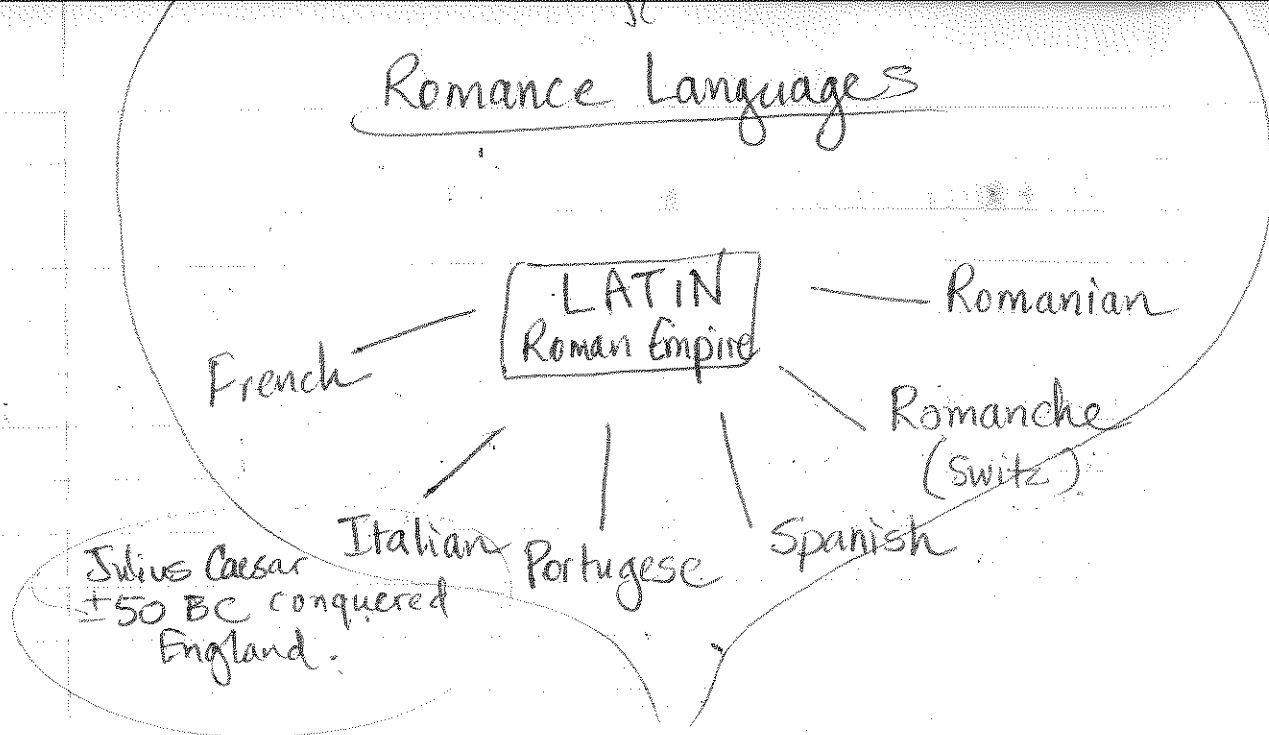


Middle Ages - more than 1000 yrs ago

Name the Romance languages and the language they all come from.



Battle of Hastings 1066
Guillaume le Conquérant
King of Eng.
Duke of Norm.
His descendants ruled England for almost 300 y



The long-term relationship between French and English

English has been shaped by many other languages over the centuries. What many people don't realize is how much the French language has influenced English.

When William the Conqueror became king of England, French took over as the language of the court, administration, and culture - and stayed there for 300 years. Meanwhile, English was "demoted" to everyday use. These two languages existed side by side in England, with the upper class, nobles speaking French while the lower, working classes spoke English.

During the Norman occupation, about 10,000 French words were adopted into English, 75% of which are still in use today. French vocabulary is found in every domain, from government and law to art and literature. A few examples include:

à la carte "on the menu"
à propos (de) "on the subject of"
au contraire "on the contrary"
bon voyage "good trip"
c'est la vie "that's life"
du jour « of the day »
chic "stylish"

cuisine "kitchen, food style"
déjà vu "already seen"
en route "on route"
faux "false, fake"
fiancé, fiancée "engaged person, betrothed"
laissez-faire "let it be"

30-50% of all English words are derived directly or indirectly from French, and it's estimated that English speakers who have never studied French already know 15,000 French words.

In brief, due to the vagaries of history, French/English translation is relatively easy, compared to other language pairs. The large body of cognates and mutual Indo-European base make the two languages more similar than dissimilar.

4b
5b

Sounding out words in French (page 1)

Here are some rules/hints to help you pronounce words you see correctly.
Vowels in French, generally sound just the way you say the letter.

e the letter e with no accent above it sounds something like the vowel sound in "book" or "look"
e at the end of words is usually silent or barely pronounced.

With an accent, the e changes sounds:

é = "ay" with an "accent aigu"--- these also make the same sound. **et, er, ai, ez.**

è, ê, ë = the sound in "get" or "bed" **ai(consonant)e** also. (chaise)

i and sometimes **y** sound like the vowels in "teen"

u can be difficult because the sound doesn't exist in English or Spanish. Make a small opening with your lips rounded like you are going to say "boo," but try to say "ee" instead.

Vowel combinations---make one sound, except when there's a *tréma* to separate them (oi, oé, ai)
ou like the sound in the word "food", "you" or the Spanish "tu"

o, eau, au = "o" in the English word "pole"

eu = e same as the letter "e" in French. Lips are almost closed.

eur kind of like and "uh" with the French "r" at the end. Lips open.

oi = "wa" NOT like "boy"

Nasals: Nasals happen when a vowel comes before an N or an M and there is not another vowel right after. (*insecte vs. inutile*)

To make the nasal sounds, pronounce the vowel underlined (French pronunciation), then make the nasal sound by not completely releasing the air through your mouth/nose.

on, "o" with blocked air
an=en both the same "a" with blocked air

Sounding out words in French (page 2)

More nasals---for these, use the same nasal sound at the end but pronounce the vowel as described.

un like "uh"+nasal
in, im, ain, a, as in "at"+nasal (*ien*) *bien*

gn = ñ (like in Spanish)

qu = k sound, NOT "kwai"

s at the beginning of a word sounds like an "s" but in the middle of the word like a "z".
ss always sounds like an "s"

c and g have both hard and soft sounds like in English. Here's the rule:

- > before the vowels "e" and "i/y", make the soft sound of c or g.
 - > before "a" "o" and "u", make the hard sound. (think of the word "garage" which comes from French.
- Ç** with the little cedille accent, the c makes a soft sound. Trace the c with the cedilla and see that it looks like an S.

lle usually make a "yuh" sound.

ch is like "show" an "sh" sound.

h is always silent. Pretend it's not there and say the vowel that follows.

w the sound of "w" depends on which language the word comes from.

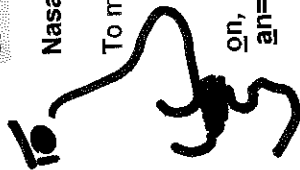
Sometimes is "w", sometimes "v" French actually has no words that start with "w," they are all adopted from other languages.

-tion the t is pronounced like an s + you say "ee-and the nasal "on"

Most important rule: A final consonant (a letter at the end of a word that is not a vowel) is SILENT in French. But, you must be

CaReFuL

because the letters "c" "r" "f" and "l" are the exceptions to this rule. You do pronounce these final consonants.



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Phonetic Rules