

# Semantic Priming, Repetition Priming, Lexical Priming and the Unprimed Learner

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- adaptability in production and reception (genre, accent, register)
- accuracy of guessing the meaning of unfamiliar words and familiar words in unfamiliar circumstances
- recognition and use of appropriate collocations

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2. There is no single language but lots of varying languages masquerading as a single language, but most theories try to ignore this.
3. When we hear or read a word with multiple meanings (i.e. almost every word in common usage), we know which meaning is meant – but how?
4. Collocations are universal, but grammars largely operate as if they are trivial

If we are to develop appropriate materials,  
we need not an abstract linguistic theory  
but a practical psycholinguistic theory.

# How do we learn language? Some key psycholinguistic experiments

Most of the psycholinguistic literature used by applied linguists is more linguistic than psychological.

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semantic priming

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(with thanks to Michael Pace-Sigge)

# How do we learn language? Some key psycholinguistic experiments

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# Semantic priming

In semantic priming experiments, informants are shown a word or image (referred to as the prime) and then shown a second word or image (known as the target word).

The speed with which the target word is recognized is measured.

Some primes appear to

- **slow up** informants' recognition of the target

and others appear to

- **accelerate** informants' recognition of the target

# Semantic priming

For example,

the prime word **wing**

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will typically inhibit the recognition of the word **pig**

and will typically speed up the recognition of the word **swan**.

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At the moment, this is probably not true of **beef**,  
which draws attention that we are talking about  
linguistic experience, not world knowledge.

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McRae and Boisvert (1998) argue however that if **the words in question have closely related meanings** there will be a priming effect even without association.

What is the significance of this to the language learner?

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This doesn't fit well with the idea that words are slotted into grammatical frames.

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# Repetition priming

Repetition priming is rather different from semantic priming, in that the prime and the target are identical.

Experiments with repetition priming centre around exposing informants to word combinations and then, sometimes after a considerable amount of time and after they've seen or heard lots of other material, measuring how quickly or accurately the informants recognize the combination when they finally see/hear it again.

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A day later, if s/he is shown the word **SCARLET** again, s/he will recognise **ONION** more quickly than other words.

The assumption must be that s/he remembers the combination from the first time, since the words **SCARLET ONION** will only rarely have occurred before (if ever).

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Forster and Davis (1984) observed that **these effects of repetition priming were more noticeable when the words in question were of low frequency in the language.**

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If a listener or reader encounters two words in combination, and stores them as a combination, then **the ability of one of the words to accelerate recognition of the other is explained.**

**If the listener or reader then draws upon this combination in his or her own utterance, then the reproduction of collocation is also explained.**

The explanation, and therefore the theory,  
has also to be  
simple in principle

because otherwise children wouldn't  
acquire collocations as early as they do

The explanation, and therefore the theory,  
has also to be  
complicated in effects

because everyone agrees that language is  
grammatically complex, intellectually  
subtle, contextually flexible and endlessly  
adaptable to new situations.

# The Lexical Priming claim

Whenever we encounter a word (or syllable or combination of words), we note subconsciously

- the words it occurs with (**its collocations**),

according collocates with to and a

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- the words it occurs with (**its collocations**),
- the meanings with which it is associated (**its semantic associations**),

**according to a** has a **semantic association**,  
in newspapers, with **research sources**  
(e.g. **according to a study**)

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- the words it occurs with (**its collocations**),
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- the pragmatics it is associated with (**its pragmatic associations**),

according to a research source has, in  
newspapers, a **pragmatic association**  
with reporting something bad

# The Lexical Priming claim

Whenever we encounter a word (or syllable or combination of words), we also note subconsciously

- the grammatical patterns it is associated with (**its colligations**),

according to a research study has the  
**colligation** in newspapers of being often  
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- the genre and/or style and/or social situation it is used in

according to a research study has the genre characteristic of being used in newspaper English.

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# The Lexical Priming claim

Whenever we encounter a word (or syllable or combination of words), we also note subconsciously

- the grammatical patterns it is associated with (**its colligations**),
- the genre and/or style and/or social situation it is used in,
- whether it is used in a context we are likely to want to emulate or not

# The Lexical Priming (textual) claim

Whenever we encounter a word (or syllable or combination of words), we also note subconsciously

- whether it is typically cohesive (its **textual collocations**)

**according to** has the **textual collocation** of rarely being repeated directly but of being paraphrased in subsequent paragraphs as **said, told** etc

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  - whether the word is associated with a particular textual relation (its **textual semantic associations**)

The claim is that every lexical item (or combination of lexical items) may be positively or negatively primed for occurring as part of a specific type of semantic or pragmatic relation or in a specific textual pattern,

e.g. contrast, comparison, time sequence, cause-effect, exemplification,

Problem-Solution, Gap in Knowledge filling.

The semantic relations or discourse patterns a word may be primed to associate with may be

- **textual**, i.e. the relations between clauses or parts of clauses or between larger chunks of text
- **interactive**, reflecting and incorporating relations between a speaker and a listener of the kind described in conversational analysis

McCarthy (1998) notes that **got** is associated with the **Problem** element of **Problem-Solution** patterns.

Hunston (2001) likewise notes that the combination **may not be** is associated with **contrast** between ideal and more achievable.

She also notes that **feted as** is associated with **contrast**.

according to a research source has the **textual semantic association** of being usually part of a claim-evidence relation

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- whether it is typically cohesive (its **textual collocations**)
- whether the word is associated with a particular textual relation (its **textual semantic associations**)
- the positions in a text that it occurs in, e.g. does it like to begin sentences? Does it like to start paragraphs? (**its textual colligations**),

according to a research study has the **textual colligation** of being very strongly associated in newspapers with

(a) first sentence of the news story

(b) second half of the sentence, often the end of the sentence.

# So...

Lexical priming can take account of

- Collocation
- Semantic association
- Pragmatic association
- Colligation (i.e. grammar)
- Textual collocation
- Textual semantic association
- Textual colligation
- Genre

# The Lexical Priming claim

All the features we notice **prime** us so that when we come to use the word ourselves, we are likely (in speech, particularly) to use it in the same lexical context, with the same grammar, in the same semantic context, as part of the same genre/style, in the same kind of social and physical context, with a similar pragmatics and in similar textual ways.

- Primings drift

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- Primings crack

# The Lexical Priming claim

- All this is what it means to know a word.
- We are ALL learners, since we never stop being primed.
- The only difference between the native speaker and the non-native speaker is the way that they are typically primed.
- Fluency is the result of conformity to one's primings.

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- We are ALL learners, since we never stop being primed.
- The only difference between the native speaker and the non-native speaker is the way that they are typically primed.
- Creativity is the result of overriding some of one's primings.

# Materials Development Implications

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- **Colligation is where grammatical analysis and the lexicon meet.**

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- Fabricated texts are unlikely to preserve the **natural textual colligations** of the language if the intention of these texts is to illustrate other features
- **Textual colligation is one place where discourse analysis and the lexicon meet.**

# Language Learning Implications: some positive thoughts

To learn a language is to be primed to use  
its words the way others use them

Teaching is a way of priming

Good priming leads to natural English

All speakers are learners because we never  
stop being primed – the difference lies in  
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Our task is to start them pairing immediately

# Language Learning Implications: some blind alleys

## **Drilling doesn't seem to work**

Formulae that are taught for communicative purposes don't seem to work

Teaching vocabulary in lists isn't going to work

Teaching grammar using any old words is definitely not going to work

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# Language Learning Implications: some promising avenues

Turn learners into investigators

Use the cohesion of a text to prime the learner

Make reading purposeful

Turn reading into speech and writing as soon as you can

Talk in the language as much as possible

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# Language Learning Implications: some scary thoughts

## Bad priming can damage fluency

L2 learners have to begin by transposing the primings of the L1 to the L2

Authentic input is essential – approximately nine encounters with a word (etc) will have a priming effect

Attention seems necessary for priming to occur

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Attention seems necessary for priming to occur (see Holly Wilson's "What Can We Still Believe About Krashen's Monitor Theory?")

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