

## **Subliminal Perception**

Subliminal perception is the processing of information by that is below one's absolute threshold for conscious awareness ([page 231](#)). Subliminal messages are messages that are presented, but are not consciously detected. Usually, these are visual or audio messages.

In 1957, James Vicary (a marketing executive) claimed to have increased popcorn sales and Coca-cola by flashing during a movie the words

**“Eat popcorn”**

and

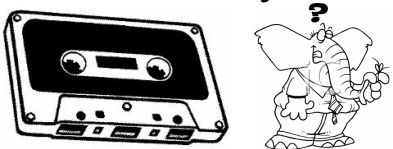
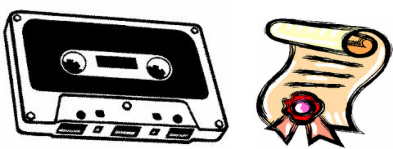
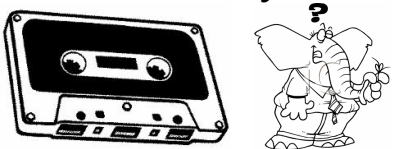
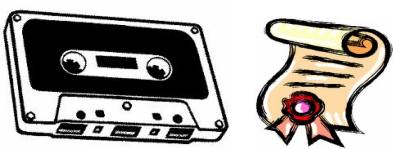



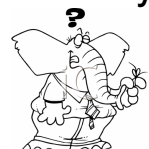
**“Drink Coke”**

Attempts to verify and replicate his claims have not been successful. James Vicary later admitted he made the story up to increase attention to his advertising agency.









## Subliminal tapes of self-esteem and memory

One study looked at the effectiveness of subliminal messages such as “my memory will improve” to improve memory and “I will feel better about myself” to improve self-esteem.

The researchers took the tapes with the subliminal messages and used them as the manufacturers recommended. However, they correctly labeled some of the tapes, and incorrectly labeled some of the tapes

Tapes to Improve Memory		Tapes to Improve Self-Esteem	
			
<u>Correct label:</u> Improves memory	<u>Incorrect label:</u> Improves self-esteem	<u>Correct label:</u> Improves self-esteem	<u>Incorrect label:</u> Improves memory
			
<ul style="list-style-type: none"> <li>• All participants had their self-esteem and memory measured before and after listening to the tapes to see if there was any improvement.</li> <li>• Participants were assigned to one of the four groups and listened to their tapes for the recommended amount of time</li> <li>• In addition, they were asked if they thought their self-esteem and memory improved</li> </ul>			

## Subliminal tapes of self-esteem and memory

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<u>Correct label:</u> Improves memory	<u>Incorrect label:</u> Improves self-esteem	<u>Correct label:</u> Improves self-esteem	<u>Incorrect label:</u> Improves memory
			
Results of the assessments			
Participants believed their memory improved	Participants believed their self-esteem improved	Participants believed their self-esteem improved	Participants believed their memory improved
No improvement in self-esteem or memory	No improvement in self-esteem or memory	No improvement in self-esteem or memory	No improvement in self-esteem or memory

People thought there was an improvement consistent with what label of the tape was. However, there was no actual improvement in memory or self-esteem.

It is important for you to know what factors are likely to produce the effect you want. Subliminal self-help tapes are not them.

## Subliminal Messages / Adverstising

- Generally, subliminal messages do not directly influence behavior.
- Generally, you are affected by subliminal or non-subliminal messages if it works on motivational states [or emotional states] ([page 138](#)). For example, subliminal messages of thirst affected people, especially when they were thirsty.
- Generally, subliminal messages influence how you feel about a topic, individual, object, event, etc. for a short period of time. How you feel about a topic, individual, object, event, etc. can indirectly influence your behavior.

Subliminal message of “enemy” Paired with an emotionally neutral object like “chair”	Subliminal message of “loses” Paired with an emotionally neutral object like “chair”
Respondents processes the subliminal messages, but had no awareness of it.	
Respondents rated the “chair” more negatively with this subliminal message compared to a neutral subliminal message.	Respondents rated the “chair” more negatively with this subliminal message compared to a neutral subliminal message.

- Effects tend to be relatively weak and tend to last for a short period of time.

## Hypnosis

What do you believe about hypnosis?

- Can you be hypnotized to behave against one's own will?



Image source: Schacter et. al.

- Can hypnosis produce “amazing feats” such as “the human plank?”
- Can hypnosis reduce pain?
- Can you induce hypnotic amnesia?
- Can you use hypnosis to enhance memory?

What does the scientific research indicate about these claims?

## Hypnosis

The following are true, but misleading statements about behaviors people can perform under hypnosis:



Image source: Schacter et. al.

- People who are hypnotized can become rigid as a board. They can lie flat with only two chairs for support (one at the head, and one at the ankles).
- People who are hypnotized will throw water on another person when they are told or shown that it is acid (the acid was later switched without the hypnotized person's knowledge).

These are true, but misleading statements about hypnosis and cannot be used to support the claim extraordinary abilities that hypnosis can produce.

- What does each statement suggest?
- What information have you not been told about hypnosis?

## Hypnosis

What information have you not been told about hypnosis?

Many of the studies of hypnosis do not have a control group. If a control group of non-hypnotized participants can perform the same behaviors, then hypnosis isn't as amazing as some claim.

- This feat is easily accomplished without hypnosis—don't try it at home.



Image source: unknown

- Experiments done with a control group show that people in the control group who were not hypnotized would throw acid on someone else when asked to by the researcher—just like those under hypnosis.

Without this information from a general and diverse education, it is hard to tell what the omissions are. This occurs quite often in politics to persuade the public into a particular policy. If you don't know how you are being misled, it is hard to protect yourself from being influenced and more likely to be misled again in the future if you take the wrong preventative action.

## What do psychologists know about hypnosis?

Hypnosis can help people:

- feel less pain,
- relax,
- and facilitate progress in therapy.

What hypnosis can do:

- **Hypnosis can help relieve pain.** This is helpful when chemical painkillers are not an option.

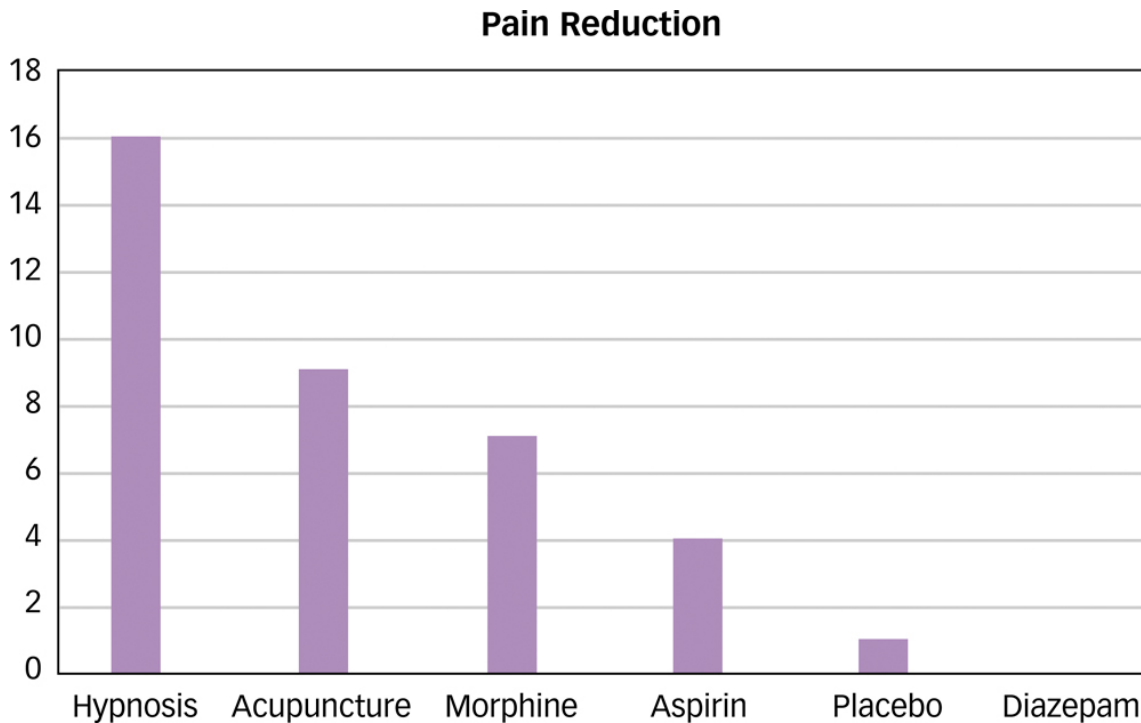


Image source: Schacter et. al.

- **Hypnosis coupled with cognitive-behavior therapy** enhances the effectiveness of weight-loss programs. Hypnosis is more successful in changing subjective experience than changing behaviors such as smoking and overeating.



## **What hypnosis cannot do**

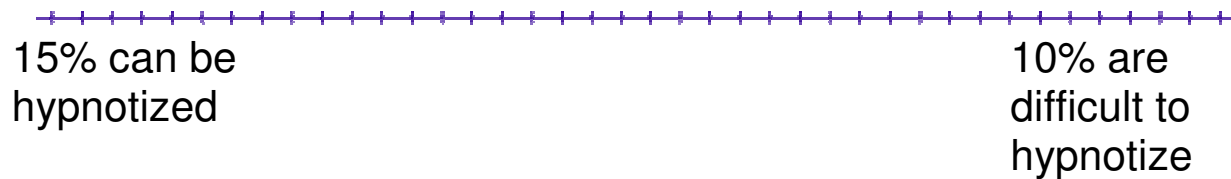
- You cannot be hypnotized against your will.
- You cannot be hypnotized to commit acts that are not congruent with your core beliefs and values (such as murder).

People are aware and control their behavior and can refuse a hypnotist's suggestions. However, just like people NOT under hypnosis, they can be coaxed and persuaded to commit acts that are not congruent their core values.

- Therapy and behavioral changes: Hypnosis has failed to produce long-term changes in cessation of smoking behavior.
- Memories:
  - Overall, hypnosis seems to increase the confidence a person has in their memories retrieved by hypnosis, regardless if they are accurate or not. People are more willing to guess what the missing information is. More often, hypnosis leads one to recall more false memories (pseudomemories) than enhance their memories—especially with leading questions.
  - A person told not to remember something heard during hypnosis may claim not to remember. In some instances, this may be nothing more than a deliberate attempt to avoid thinking about specific ideas.  
However, a brief memory loss does seem to occur.
- Strength: Hypnosis has no more effect on physical strength than instructions that encourage a person to make his/her best effort.

## Factors Related and Unrelated to Susceptibility to Hypnosis

Approximately 15% of the general population can be hypnotized and about 10% of the general population is difficult and virtually impossible to hypnotize. In addition, children are easier to hypnotize than adults.



Several studies have shown that susceptibility to hypnosis is UNRELATED to personality characteristics such as:

- gullibility,
- hysteria,
- psychopathology,
- trust,
- aggressiveness,
- submissiveness,
- imagination or
- social compliance

People who are highly hypnotizable and difficult to hypnotize have the same rates of these characteristics.

Susceptibility to hypnosis, however has been linked with an individuals' ability to become absorbed in activities such as

- reading
- listening to music or
- daydreaming

For more information on-line about hypnosis, read the following article from Scientific American that can be found on-line:

- Nash, Michael, R. (2001), The Truth and The Hype about Hypnosis, Scientific American, July 2001, url: <http://www.sciam.com/2001/0701issue/0701nash.html>.
- What do you really know about hypnosis section from the above article: url: <http://www.sciam.com/2001/0701issue/0701nashbox3.html>

What seems to be more amazing than the amazing things hypnosis cannot produce is that 47% of therapists interviewed would have greater confidence in details recalled from hypnosis. Hypnotic effects can be useful, but seldom amazing.

Why do many people believe that hypnosis can produce many effects (such as those listed above), when it cannot?

- Like with many pseudoscientific claims, you are given partial information.
- Television often incorrectly portrays hypnosis (the real story isn't that exciting or sensational to draw an audience).

## Explaining Hypnosis

Dissociation Theories: Hypnosis is an altered state involving a division (dissociation) of consciousness.

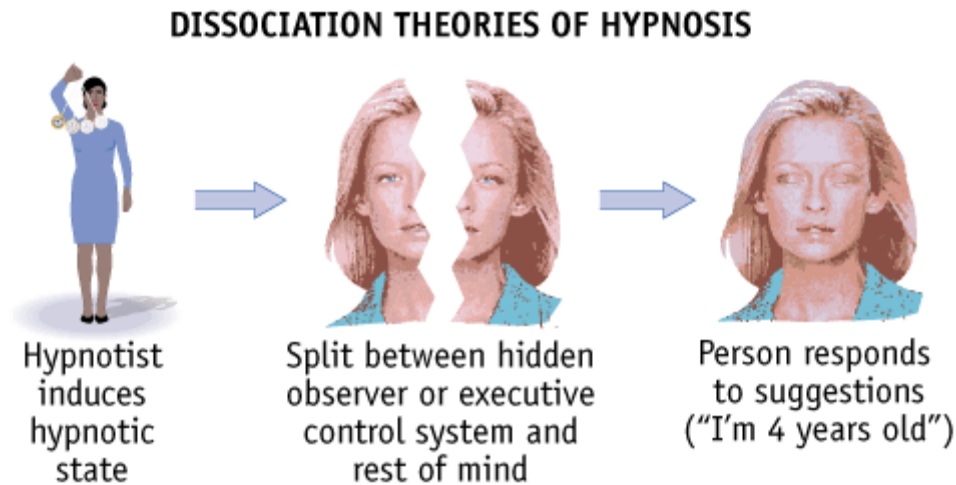
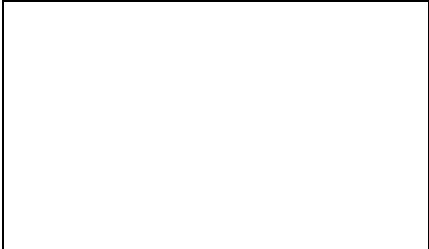


Image source: Wade and Tavris

There are two streams of consciousness (awareness) that are cut off from each other. One stream responds to the hypnotist's suggestions, and the other remains in the background aware of everything that goes on.

		
Arm in the water	Laura	Mind "somewhere else"
Smelling the colognes	Michael	Interpreting the colognes

## Explaining Hypnosis

Social-Cognitive theories: Hypnotic experiences result from expectations of people who are motivated to take on the role of being hypnotized.

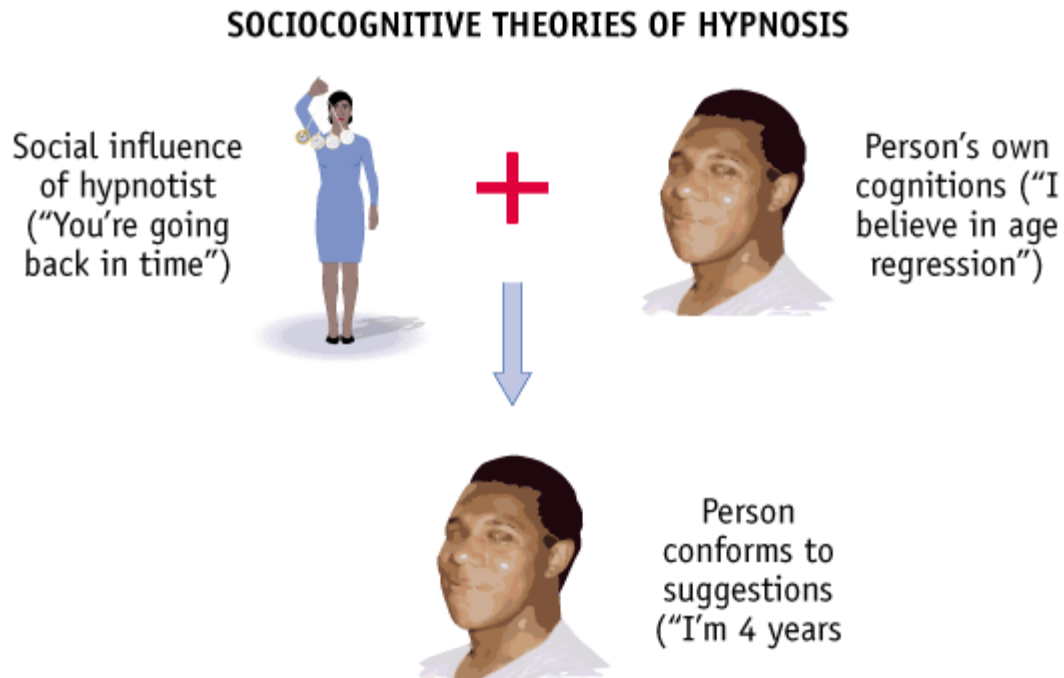


Image source: Wade and Tavris

Most people believe that hypnosis involves a trance-like state and responsiveness to suggestions. People highly motivated to conform to role develop a perceptual set and respond accordingly.

French cologne – was told it was flowery  
California cologne – was told it was musky