

Hello, class.

If you recall, there are two different types of long-term memory that we talked about. And that's explicit and implicit. Or another term that we use for it is declarative and procedural memory.

Explicit memory, or declarative memory, is any kind of long-term memory that's factual information. Things like words, or numbers, or symbols. These are things we're usually conscious of. Which is to say, that we have them in our minds, and we're thinking about them, and we can also verbalize them. We can tell what our declarative or explicit memories are. These are things like math or science facts and information, as well as memories of personal experience. For example, being able to tell who was at your fifth birthday, would be an example of an explicit, declarative memory.

These memories use recall, or recognition, to test whether the memory has been effectively remembered, or learned.

Recall is any kind of retrieval of information, where we directly reproduce that information. For example, on a fill in the blank test, we would have to remember what the word is, and put it in exactly as we remember it, on the test.

Recognition, on the other hand, is when we recognize the information being presented to us from our memory. For example, in a multiple choice test, where the answers are in front of us, and we just need to choose the correct one, from our memory.

Now, on the other hand, we have implicit, or procedural, memory, which is any kind of long-term memory of actions, or skills, or how to do certain kinds of things. And the tricky thing about these is, these are unconscious memories, and we can't verbalize them necessarily. These are things like how to ride a bike or how to tie a shoe.

So the question is, how do we know what is inside our implicit memory if it is unconscious, and we're not able to verbalize it? In other words, if we can test explicit, declarative memory in these ways, how do we test implicit or procedural memories?

Psychologists have found that we can show what we have stored in our implicit memories, through the use of a technique called "priming." Priming means giving some kinds of limited clues, which activate unconscious memories, and bring them up to the forefront, so we can see what they are.

For example, this is a test that was done in a psychological study. If you're shown a list of words that would also include the word "chair." So things like table, pen, desk and chair, and later on, you're asked to provide a word

that starts with the letters, "ch," then you're very likely to say the word chair, because it's been primed, in your mind, as a word to remember. In other words, you've stored that in your implicit memory.

This process seems like it's relatively simple. Just remembering words, but not really remembering them. But psychologists have found that this can have very strong real-world applications. For example, John Bargh found, through experiments, that stereotype priming can have large effects on our behavior, without us even realizing it.

In one experiment, John Bargh took people, and give them a test, where they are unconsciously exposed to words that had to do with the elderly. So while they were reading through the test, there were little words that were sprinkled through. Things like Florida, or gray, or things that we associate with the elderly. After the people we're done with this test, they were asked to deliver the test to a room at the very end of a hallway. So they had to walk over to the room to deliver the test. And they didn't realize, this was actually what was being studied in that test. So the people that were exposed to those elderly words we're found to move much more slowly as they walked down that hallway. In other words, they had those elderly words primed in them, and as a result, they acted in a more elderly way.

Bargh and other psychologists have found that this applies to other things, as well. Things like personality characteristics, like rudeness. They found that priming those things can make people more rude. And they found that this sort of stereotyping can also apply to our unconscious feelings of people of different races, as well.

So you can see how implicit memory can affect us in explicit, or in behavioral, external ways, as well.