

You are now aware of your own breathing.

You can feel the pattern, yes?

Good.

Breathe in. Hold it. Breathe out. Good.

Now you feel your eyes getting dry. Blink. And again. And again, you can't stop.

The back of your head is starting to itch.

Go on, scratch it.

Do it.

For the past 10 seconds you consciously performed activities that are typically semi-automatic reflexes and compulsions. During those 10 seconds, you exercised control over your body. But now, within the 8 seconds that it took to read this paragraph, those processes have once again gone back to being unconscious and involuntary.

Frequent questions I ask myself:

Why do I react the way that I do in certain situations?

What triggered my brain to react in that way?

Is there a deep unconscious reason behind my behaviors, or is it just situational?

Just like breathing, certain physical reactions are 100% involuntary. They include jumping at loud noises, salivating at the taste of lemon juice, associating a certain color with an emotion. I, along with the rest of the world, don't consciously choose how to react; I don't "take a beat" to evaluate a situation and determine my next move. These are decisions originating somewhere deep inside my / our core(s).

However, along with shared reflexes that seemingly everyone else has, I've noticed that there are a lot of unconscious reactions that happen in my brain that are unique to my life and my past experiences. This is what led me to the question of **why**, and **how**.

Now: to preface my research into this topic, we need to start at the basics of this entire idea as a whole; the study of the unconscious mind.

Unconscious behavior, as defined by American physicist Leonard Mlodinow, is the set of automatic behavioral instincts the mind processes, over which you have no awareness nor control. And the unconscious mind has been a source of curiosity throughout history.

Austrian psychoanalyst and neurologist Sigmund Freud is considered the father of psychoanalysis, responsible for much of what's understood about the conscious and unconscious mind. Freud studied the way the mind and body are connected through consciousness, instinct, and ego. One of his theories was that the body is not in complete control of its actions, and instead, the unconscious mind is responsible for how our body makes decisions, and processes its urges, memories, feelings, and thoughts.

Another psychologist that studied the same ideas as Freud, and was far more accepted in the world of science and psychology, was the Swiss philosopher, Carl Jung. According to Jung, the human mind is imprinted with innate characteristics, in response to evolutionary traits such as fear of the dark, or fear of spiders. Unlike Freud, Jung saw the unconscious mind as a mix of ideas, where undeveloped responses and thoughts coalesce.

Regardless of whether or not I accept these theories as gospel, it is important to understand the significance of these findings -- how they shaped philosophy and general knowledge, and how they can still be used today to interpret instinct.

As UC Berkeley Professor of Psychology Dr. John Garcia stated, involuntary reactions are "an acquired response in which the subject (which can be a human or other animal) learns to associate a previously unrelated neutral stimulus with a different stimulus that elicits some kind of reaction." An example would be a simple action like your foot hitting the brake when something jumps in

front of your car. You know how to drive, so muscle memory works in your favor. You've established there is something in the road, so both the protective and survival instincts in your brain are triggered. And, using both of these tools, your brain makes an instantaneous decision to direct your foot to press the brake. Your mind makes the connection between a skill that you are very familiar with, and the "flight" instinct of staying alive, but all of these connections and decisions are happening unconsciously, in a millisecond. Similar examples of conditioned reflexes are the startle reflex, in which your body's muscles contract when loud noises are heard, as well as the salivary reflex, in which your mouth salivates when smelling and tasting food.

One of the most famous studies on conditioned reflexes and instinct was an experiment conducted in 1920 called "Little Albert", which exposed an infant (named Albert) to a variety of different stimuli in order to observe the boy's reactions. The child was shown a white rat, followed by a loud bang. Each time the child was presented with the rat, a loud noise would sound, causing Albert to cry. Later, when the child was exposed to the white rat by itself without noise he would *still* cry – a conditioned reflex that was spurred from the memory of the loud noise by his "trained" brain. Another famous experiment known as "Pavlov's Dogs" was a study performed by Ivan Pavlov in the 1890s, using classical conditioning to research how dogs' salivary reflexes are triggered using stimuli. Lessons from this led to study habitual conditioning in living beings -- shaping what we know as modern basic laws of classical learning / conditioning.

It is important to distinguish between the experiments of Pavlov's studies and Little Albert: Little Albert was a study of the emotional side of conditioned reflexes, and Pavlov's experiment studied observable behaviors and a new side to what's known as Behaviorism.

Behaviorism is the overarching process of involuntary reactions which emphasizes "the outward behavioral aspects of thought" expressing how our behaviors are all coined through conditioned learning, while dismissing "the inward experiential."¹ In other words, it's the idea that all behaviors are a set of habituated skills, and that they have little similarities to emotion and thought, rather focusing on the true motor function. But, compulsions don't fit neatly into this definition. To be compulsive is to have an irresistible and involuntary urge to do a certain thing. This is usually associated with OCD (Obsessive Compulsive Disorder), a condition of all-consuming urges -- rather than the more common involuntary compulsions, which are simple things such as tics (nervous or not) and yawns that your body goes through at uncontrollable times, in an uncontrollable way.

Ok, so what does this have to do with *my* life?

Of course I flinch at sudden movements and have many unique compulsions that are a part of my life, but clearly there are bigger reactions (unconscious) that I feel are particular to me. Lately, I've wondered how my own brain behaves as a result of triggers and circumstances, and what caused my own conditioned reflexes -- what's trained my mind?

I've narrowed these particular behaviors to three.

¹ Hauser, Larry. "Behaviorism." *Internet Encyclopedia of Philosophy*, www.iep.utm.edu/behavior/#H1.

The first is what happens as a result of receiving negative criticism and judgment -- my first instinct is to back away, literally absorb, believe, and almost apologize to and for the messenger. I've come to realize it's damaging, taking a toll on my mental health, because it means I take hits, rather than defend myself in any way.

For example, if an arts instructor criticizes my work, my brain involuntarily agrees without question -- I automatically negate myself (and the time I spent in my artistic process) with a smile. In turn, my teacher receives the message that I take criticism in stride and, consequently, isn't concerned with offering more. This might be a result of my natural respect for authority, and my training to think that my teacher always knows what's best and has my best interest in mind. Plausible, perhaps, except, I give the same reaction to my peers.

I also comply with my own family's criticism. If my sister makes a hurtful side-comment -- one which seems neither important nor relevant in the moment -- my brain freezes, and I slump into resignation. I slip into the demeanor of a sheep, agreeing with everything, following every order. I'm usually proud of my work and of my process. I know full well the wisdom and experience of mentors is critical to my development. But I find I too immediately defer. I have no evidence to explain my behavior -- am I overly sensitive, or is it a biological effect that everyone experiences?

My second conditioned reaction results from anticipated disappointment or hostility -- I emotionally withdraw; my mind shuts down. Perhaps it's an instinctive "flight" reaction -- though not physical. I shut my mind off to coherent thoughts, and put up "walls" in my mind to act as shields to bounce off hostility. I desensitize.

A few years ago a former volleyball coach of mine stood and screamed at my team for an hour without a break. I could do nothing but stand and soak it in -- each word felt like another brick in the wall to surround my mind and my heart. While others on my team defended themselves, I could not speak.

Not long ago, a friend of mine was irritated at me and decided to raise her voice. In that moment, I had no thoughts, I was like an impenetrable surface, hearing her criticism, but not reacting. It didn't feel like a planned, conscious decision.

A third example of my unconscious behavioral change is more physically intense. When I am surprised by attention, I can feel overwhelmed, compounded by feelings of extreme loneliness or extreme attention, my body gets hot, my head starts to spin, I get nauseous, and I can't see straight. It's sensory overload -- did something from my past cause this?

Just yesterday at Thanksgiving dinner, I walked in after the rest of the party had offered the toast. When I arrived, everyone turned to me with a chorus of "to Lua!" The sudden wave of attention, noise, and brightness of the lights did nothing but overstimulate me -- I had to excuse myself, and take a minute to readjust in another room. It was an involuntary reaction -- I felt vulnerable and alone, due to no cause of my own. An unconscious reaction I felt no control over.

I know full well that other people may experience things similarly, with these same stimuli. But it doesn't seem to hinder them in the same way. I'm only now coming into an awareness of my own reactions, and asking where and why I have them.

My first two behaviors are most similar to the experiment of Little Albert: emotional conditioning. My reactions are internal, feelings rather than external or physical reflexes. When I am presented with hostility or disappointment, I emotionally withdraw. When I am critiqued or judged, I believe it, and make excuses in my mind. This is an issue though, because even through extensive research of the unconscious mind, how conditioned reflexes shape our world, and what a habitual learning practice looks like, I am still unable to identify where these emotional triggers originated in my past. It seems like the reason *why* I do these things is from an internal insecurity, which is bound to have arisen from something previous in my life. But it also could be completely genetic and biological. My gut says I withdraw from tough situations because I am unfamiliar with hostility. I believe that I cower to authority and my peers because I am scared of rejection. But, in reality, I could be wrong. I don't have the tools yet to fully understand the unconscious mind.

My third behavioral response may be most similar (in a sense) to the experiment of Pavlov's Dogs, because it's a more physical reaction, rather than a mental one. The changes my body goes through in that moment -- rising temperature in my face, spinning vision, the stomach churn -- these are all still unconscious processes and reactions. The reason behind these feelings, though may be traced to a specific traumatic experience in my lifetime, could be completely genetic and biological, or it could even be a situational heat of the moment sort of thing. I don't know. Even with all of our modern technologies, we cannot fully grasp the possibilities and secrets that lie within our bodies and the way that they function, out of our full control. And although I will continue to look within myself for answers, I doubt that I will come to any satisfactory ones.

I plan to bring more consciousness to my unconscious behaviors. They offer clues about how my brain works, and what experiences have shaped my life. These reactions are not debilitating, but instead are a part of who I am -- like companions that I have come to tolerate and accept. Psychology intrigues me. I want to look at these reactions more carefully, study other people, find out how certain unconscious behaviors are linked to past experiences or even traumas. This is just the first step.

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