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Why Did You Do That?

Whether it is good or bad judgements, everyone has their opinions. People are bound to be judgemental knowing and unknowingly. Because of this, everyone in the world usually has two basic thoughts at least once everyday.

“What is he thinking?” You think this when you see someone acting out of the ordinary. If you are watching the news and see that a man decided it was a good idea to free climb the Golden Gate Bridge at midnight, your natural reaction would be to pass a judgement about who this crazy person is and what the heck they were thinking.

“Why did I do that?” We have all thought this question to ourselves at some point or another. I, as I’m sure many of you readers will understand, like to think of myself as a mostly rational person. I know not to try to climb any bridges or to run around in traffic. I have what is commonly referred to as “common sense”. Yet still, I have found myself being dragged on my back by my dog on concrete that one time I thought it was a good idea to have her pull me on my skateboard. While this event isn’t quite as newsworthy as climbing a deadly bridge, it was a bad decision nonetheless. So why do I make these choices?

Why do people make decisions, and do we have any control over the decisions we make? I wrote this paper about decision making because I want to learn how to be the most persuasive

and convincing person I can be. I want to learn this to not only help my readers gain knowledge on arguments and the human brain, but also in order to be successful because interacting with people in effective and productive ways is important.

Scientific research has always been a dependable source and has proven itself useful in answering the most basic and the most complicated of questions. While researching the topic of decision making, I found myself researching neuroscience and cognitive psychology. Learning about these two areas related to my interest in advertising, because a big part of advertising is appealing to people and getting them to buy into whatever a producer is selling. “Are you thinking with your heart or your brain?” This question is often asked in movies when a character needs to make a hard choice. Whoever is asking this question is referring to if someone is using their heart, therefore their emotions, or their brain, and therefore their logic, to make a choice. So the scientific answer to the question of why people make decisions is not a question of whether they are using their heart or their brain, because every decision you make is made in your brain. To be specific, in the ventromedial prefrontal cortex. Time Magazine’s article *Making Choices: How Your Brain Decides* describes a study that “found that... a brain area, the ventromedial prefrontal cortex (vmPFC), evaluates risk and reward as part of a neural network that also includes the orbitofrontal and frontopolar cortex... In most respects, people with lesions in the vmPFC appear normal — their language skills, perception and overall intelligence are unimpaired — but their ability to balance rewards versus risks is skewed.”

In this same article, Jan Glascher, lead author of a study on emotional versus logical brain regions, furthers this by describing that “cognitive control and value-based decision-making tasks appear to depend on different brain regions within the prefrontal cortex.”

A separate group of researchers also talked about in this article “found that damage to a region known as the dorsolateral prefrontal cortex (dlPFC) appears to profoundly affect cognitive control. The study suggests that the dlPFC forms a network with the anterior cingulate cortex, together keeping focus, switching it when appropriate to the task, and looking for erroneous choices in order to correct them. People with damage to the dlPFC had difficulty on cognitive tests that assessed their attention, including the ability to switch from one category of response to another.” This confirms that the location of the brain that controls decision making is in the prefrontal cortex of the brain because when people have damage to that part of their brain, they cannot make decisions.

Psychology Today published an article in January of 2016 titled *How Do We Humans Ever Make Good Decisions?* that also looked into the question of decision making correlated with brain development. “Perhaps the biggest obstacle is neurological where the pre-frontal cortex, the part of the brain associated with executive functioning, doesn’t fully develop until the early twenties. Executive functioning directly influence decision making because it regulates, controls, and manages our thoughts, emotions, and behavior. It influences our reactions to new, ambiguous, and difficult situations. It helps us to weigh risks and rewards and short- and long-term consequences. Executive functioning assists us in planning, organizing, and executing decisions and, importantly, it can prevent us from making rash and potentially harmful decisions.” Because the prefrontal cortex of the human brain does not fully develop until someone’s mid twenties, people under this age have a better explanation when they make bad choices. Their brain has literally not developed yet!

Neuroscientist Antonio Damasio conducted a study of people with damage to the part of

their brain where emotions are generated. While everything else about these people was normal, they did not feel emotions, which was to be expected because of their brain damage. However, what was also interesting about his findings were that he discovered that all of these emotionless people were also completely incapable of making decisions. Big Think's article *Decisions are Emotional, Not Logical: The Neuroscience behind Decision Making* explains that these subjects "could describe what they should be doing in logical terms, yet they found it very difficult to make even simple decisions, such as what to eat. Many decisions have pros and cons on both sides—shall I have the chicken or the turkey? With no rational way to decide, these test subjects were unable to arrive at a decision." The conclusion because of this, is that emotions fuel decision making.

We as humans think that we have control over our mind's decision making process, but in reality that is not the case. Professor Daniel Kahneman from Princeton University explains, "If we think that we have reasons for what we believe, that is often a mistake." This quote comes from an article by Psychology Today titled *How Do We Humans Ever Make Good Decisions?* that goes on to explain that no one person is capable of making a completely uninfluenced decision. The research of economic nobel prize winner Daniel Kahneman demonstrates that people are constantly "at the mercy of psychological, emotional, social, and situational influences when we make decisions." These cognitive biases tend to cause people to "draw conclusions and make decisions based on limited information or self interest" which can lead to irrationality and impulsivity.

The idea of peer pressure influencing individuals decisions is discussed in Psychology Today's article *How Do We Humans Ever Make Good Decisions?.* Whether they are aware of it

or not, people are always being influenced by the social world they are in. “As considerable research on peer pressure and groupthink has demonstrated, our decisions are also significantly influenced by social forces, whether friends and family, cultural messages, or societal norms.” Social situations have been proven to alter decision making, because it is human nature to want to fit in.

Psychology Today continues, saying that “feeling stressed or rushed alters our decisions. The decisions we make are affected by our mood. We make different decisions based on whether we are feeling happy, contemplative, or disgust.”

Another type of bias that often comes into play when people are making decisions is confirmation bias. Confirmation bias is when people look for information that they already know. For example, when trying to decide whether or not I should text the boy I like, I always text my friend about it first because I need confirmation that I am making the right decision. It is a weird phenomenon and I should act on just my opinion because I already know the right thing to do, but that does not stop me from needing affirmation that I am making the right call. BBC News describes confirmation bias as “the tendency to look for information that confirms what we already know. It's why we tend to buy a newspaper that agrees with our views. There's the hindsight bias, the halo effect, the spotlight effect, loss aversion and the negativity bias. This is the bias that means that negative events are far more easily remembered than positive ones. It means that for every argument you have in a relationship, you need to have five positive memories just to maintain an even keel.”

Another pressing question that I have been looking into is whether or not being emotionally involved in a problem that needs to be solved is detrimental to the ultimate solution

of the issue. Emotions cloud judgement in decisions about people's personal lives, as showcased by basically every kind of media in existence, but do emotions affect the ability to be logical in a professional setting? What I have been finding is that it can be. According to an article from Big Think, "people who believe they can build a case for their side using reason are doomed to be poor negotiators, because they don't understand the real factors that are driving the other party to come to a decision." When someone is arguing for something, the more emotional they get, the less rational and factual their arguments become, subsequently making their side of a problem less convincing.

Touch has always been my favorite of the five senses. Touch comes in many different forms and communicates many different things. MJ Hertenstein, like myself, was fascinated with the power of touch, so he conducted a study in 2006 to figure out just how strong of an influence the sense has on people. The article *10 Psychological Effects of Nonsexual Touch* by Psyblog described his study. "Using only a touch on the forearm, participants in this study tried to communicate 12 separate emotions to another person. The receiver, despite not being able to see the toucher, or the touch itself, were pretty accurate for anger, fear, disgust, love, gratitude and sympathy. Accuracy ranged from 48% to 83%. To put it in context, that is as good as we can do when we can see someone's face."

When I researched this study further, I ended up on NCBI pubmed.gov where I read that "two kinds of evidence suggest that humans can communicate numerous emotions with touch. First, participants in the United States (Study 1) and Spain (Study 2) could decode anger, fear, disgust, love, gratitude, and sympathy via touch at much-better-than-chance levels. Second, fine-grained coding documented specific touch behaviors associated with different emotions. In

Study 3, the authors provide evidence that participants can accurately decode distinct emotions by merely watching others communicate via touch. The findings are discussed in terms of their contributions to affective science and the evolution of altruism and cooperation.”

But what does this have to do with making decisions, you might ask? This idea of touch brings my paper back to the original goal of becoming a good communicator. Because of studies like this, I know that if I can make slight (appropriate) physical contact someone who I am in a disagreement with, it is possible that they would ultimately be more willing to listen to and understand my opinion.

One of my favorite pieces of evidence that I found while doing this research is one that I read about in the BBC News article *How Do We Really Make Decisions* called the monkey experiment. Doctor Santos taught a troop of monkeys to use money to buy treats in a system that she calls “monkeynomics”. By doing this study she was testing if the monkeys would show if monkeys, like humans, showed loss aversion; this means that they would rather avoid loss than acquire gains. When I was previously talking about confirmation bias, I mentioned the theory of loss aversion. Loss aversion was first thought of by Amos Tversky and Daniel Kahneman who discovered that loss is twice as powerful as gain. This theory also applies here.

Referring to the monkey experiment, Doctor Santos said that “what we learn from the monkeys is that if this bias is really that old, if we really have had this strategy for the last 35 million years, simply deciding to overcome it is just not going to work. We need other ways to make ourselves avoid some of these pitfalls.” From this information she thinks that although we may not be able to change ourselves and how we act, but by us being aware of our “cognitive limitations,” she might be able to create an environment that allows for our natural mistakes. Dan

Ariely added onto her idea, saying “We are limited, we are not perfect, we are irrational in all kinds of ways. But we can build a world that is compatible with this that gets us to make better decisions rather than worse decisions. That's my hope.”

So is it possible to be completely in control of your decisions? Is there such thing as an unbiased, emotionless opinion? My answer is no. Humans are conditioned their whole lives to act and think a certain way, so to get rid of this way of thinking and deciding and rationalizing would be getting rid of someone’s identity. Of course, individual perspectives and behaviors and personalities are always evolving. I’m not trying to say that humans will always act a certain way. What I am saying, is that people are their experiences. We are every decision we have made, every act we have ever committed, every person we have ever interacted with. So I do not think that it is possible to make a strictly factual, unprejudiced decision. But I think that’s a good thing, because we wouldn’t be human if we could.

“Our ability to achieve success depends on the strength of our wings gained through knowledge and experience. The greater our knowledge and experience, the higher we can fly.”

Katherine Pulcifer

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