"Happiness, Feeling pleasure and enjoyment because of your life, situation, etc. Showing or causing feelings of pleasure and enjoyment. Pleased or glad about a particular situation or event." These are many definitions of happiness, but none of them make me feel the way I do when recalling a happy time in the past. As a child, I've been told that I was happy but emotional. My parents were both in a career that they didn't feel satisfied with and my brother, and I did not enjoy our time spent at school. My mother tells me that I would cry, and scream when others around me were not happy, and I would be sure to make my feeling known. I don't remember a lot about those feelings now, but I do know that I didn't like when people where unhappy with their lives, just "because," or "that's the way it is." I still find it upsetting that so many people in my life know they're unhappy, but do little or nothing about it. That they just accept their discomfort and will not even attempt to fix the things that are wrong with their lives. I don't know what in the past few years caused me to feel happier and more accepting, but I know that whatever it was, it worked. I decided to research this topic, as well as address this problem that I think a lot of have, because I want to know if there is a way to make it so nobody else in my life has to feel disappointed or unhappy about the way they're living.

What does happiness mean to me? Can everybody accomplish happiness? Why do we smile? Is happiness the reason we smile, or is it the other way around? These are all questions that have waited far too long to be answered and are only recently being looked at as worthy of scientific and social study. A big question that I have had for a long time is why are so many people so unhappy, and is there anything that we can do to all become happier with our circumstances? I believe that happiness if worked towards and truly wanted, can be achieved by anybody.

Beginning with the simple concept of happiness and it's sources are relatively simple explanations. Happiness is defined differently by each person that is asked, but neurologically has a very straightforward explanation. Beginning with the nervous system, and sensory input areas like the nose, eyes, and ears. When a person receives stimuli from one or more of these inputs, the information is then transported through the body's nervous system and into parts of the brain that read and respond to the information given. There are seven main molecules in the brain that respond to "positive" stimuli, making us feel good which are: endocannabinoids, dopamine, oxytocin, endorphin, GABA, serotonin, and adrenaline.

Endocannabinoids, also known as "The Bliss Molecule," is a self-produced cannabis that effects the CB-1 and CB-2 receptors in the brains cannabinoid system. Scientists have predicted that it is most likely that humans self-produce just as many different variations of endocannabinoids as the Cannabis plant, but it will apparently take years to isolate all of them. A study at the University of Arizona in 2012 proposed that endocannibinoids are likely the cause of a runner's "high." The study, performed on both dogs and humans, shows that both the subjects experienced a significant increase in their endocannibinoids while running for an extended amount of time.

Dopamine, or as it is commonly known as, "The Reward Molecule," is the molecule responsible for reward-driven behavior and is the reason for a person's natural craving for praise

or reward as result of an accomplishment. Addictive drugs like cocaine and methamphetamine directly affect the dopamine centers of the brain, and some even prolong the effects of the molecules release on ones mind. Interestingly, there is research that has shown people with extraverted personality types tend to have higher levels of dopamine than those with introverted personalities.

Oxytocin or, "The Bonding Molecule," is a hormone that is linked to human bonding and relationship building. This hormone increases trust and loyalty between two or more people. Skin-to-skin contact, affection, love making and intimacy all cause the release of oxytocin. The release of this hormone can also work with pets. In a recent study, The level of oxytocin rose in both a dog and it's owner after they spent time cuddling.

Endorphin, or" The Pain-Killing Molecule," does just as its nickname says. Endorphin translates into self-reduced morphine, and they resemble opiates at their chemical structure. They are produces in the pituitary glands and the hypothalamus and are released during physically strenuous activity. Endorphins are connected the 'feeling no pain' aspect in exercise that leaves room for endocannabinoids to cause a "runner's high."

GABA, also known as, "The Anti-Anxiety Molecule," is an inhibitory molecule that slows down the firing of neurons, which creates the feeling of calmness. People who practice yoga and meditate on a regular basis usually experience the effects of GABA more frequently. Drugs like, Valium and Xanax are sedatives that are used as anti-anxiety medication, but have risks of dependency and wide range of side effects. "The Journal of Alternative and Complementary Medicine" did a study and found that GABA levels among yoga practitioners after a 60 minute session were twenty-seven percent higher than participants that read a book for 60 minutes, suggesting that yoga can increase GABA production naturally.

Serotonin, considered "The Confidence Molecule," plays several different roles in our bodies. The effects of this molecule encourages people to put themselves in situations that will boost their feelings of worthiness, self-esteem and give a sense of belonging. Scientist do not know much about the role of serotonin in mood-disorders, stress-disorders and panic disorders, but continue to find out more about their connection to each other.

Adrenaline, technically called epinephrine, is popularly associated with hyperactivity or excitement and is a big part of the "fight or flight" mechanism. Adrenaline causes increased heart rate, and blood pressure which creates a sudden surge of energy and excitement. What is usually called an "adrenaline rush," comes in times of stress and fear it is released on demand when voluntarily doing something that is terrifying or strenuous. People who seek out possibly life threatening stunts and situations are often called "adrenaline junkies," or "addicts." These people often look to put themselves in scary situation so their bodies will release more adrenaline more often; Therefore getting their "fix."

Referring to the smile and it's connection to our happiness, we can first learn about how it works. A smile begins in the sensory corridors of our bodies. Corridors are the eyes, ears, nose, mouth and outer layers of skin. We smile to respond to the things happening around us. We act emotionally to a situation and it shows in our faces. When emotional data travels to the brain's left interior temporal region, two muscles contract on the surface of the face. First the Zygomatic major, which is located in the cheek and tugs the lips upward at the corners forming a smile both on demand and when responding to an emotional trigger, often automatically. The second is the orbicularis oculi, which encircles the eye socket and squeezes the outer corners into the shape of a bird's foot. The entire action only lasts between one to four seconds and when witnessed by others is usually compelling to mimic. Psychologists call the use of the two muscles the,

"Duchenne Smile" and is considered the indicator of true enjoyment. The name Duchenne is after the french anatomist Guillaume Duchenne, who spent a lot of his career studying emotional expressions. In his 1862 book, "Mechanism, de la Physionomie Humaine," he wrote, "The Zygomatic major can be willed into action, but only The sweet emotions of the soul force the orbicularis coulee to contract. Its inertia, in smiling, unmasks a false friend."

The most associated recognition of a smile is when somebody is happy, but not all smiles express this feeling. Some expressions that would be described as a smile are often just the opposite of the face of happiness. Some emotions can be expressed by smiling in one form or another. These feelings include that of embarrassment, deceit, and grief. Scientists have, over decades of study, learned that one of natures most used and recognizable expressions is actually a very complex one as well. The belief that smiling is a determinant of happiness persisted for decades, until the late 1970's when two psychologists at University of California, San Fransisco made new developments. Psychologists Paul Edman and Wallace Friesen identified the muscular corridors in 300 facial expressions with a system they created called, "The Facial Action Coding System" (FACS). These two psychologists' discoveries resurrected Duchenne's Distinction between a genuine smile and others.

The way that the these two researchers tested their theories, required attaching electrodes to volunteer recipients and tested the neurological response to a series of four short films. Two of the four films depicted pleasant and positive emotions, while the two others showed somewhat disturbing and unpleasant emotions. The results with use of FACS in their experiments made it so the two psychologists were able to confirm the Duchenne smile is correlated with the pleasant films and the happy feelings that came with it.

Information about happiness and smiling has grown greatly in the time between now and Duchenne's time. Some studies in recent years have shown the possible ability to predict significant event's in peoples lives, like marital happiness, personal well being, and longevity. In a study at the university of California at Berkeley, psychological scientists LeeAnne Harker and Dacher Keltner analyzed the college yearbook photos of women, then using FACS, matched the smile ratings with personality data collected during another study almost 30 years prior. The scientists came to the conclusion that women who displayed the Duchenne smile had greater levels of general well-being and marital satisfaction by age 52, through a survey and interview.

How can somebody make themselves more happy? There are actually two kinds of happiness and their has been some debate on whether these two types are both equally rewarding or even real. The two different types of happiness are divided into one being "Natural happiness" and the other being "Synthetic happiness." Synthetic happiness is the thing that most people feel when they need to feel good, but without cause. Psychologist Dan Gilbert has referred to this action as the "psychological immune system." The Psychological immune system takes action when feeling under threat; just as an organisms biological immune system, and works to set things back to where they need to be. In this case it would be one's "happiness levels".

Synthetic happiness is just as it says: A made up form of satisfaction. Some arguments have been made about whether synthetic happiness is simply fake and just an unhealthy fantasy in which people trick themselves into being happy when they're really the opposite. Dan Gilbert, a psychologist and author of several books and papers on the matter, disagrees with this statement, explaining that everybody has the ability of creating synthetic happiness and that all people take advantage of this ability on a regular basis. One of the most reliable findings is that people have remarkable ability to see the best of a situation even when there isn't any. This is what synthetic happiness is.

The difference between synthetic and natural happiness is presented in itself. Synthetic happiness is what one feels when they don't get the feelings of satisfaction where as natural happiness is what everyone feels automatically when getting that satisfaction. The two kinds of happiness can actually work together very well and affectively. An example of this inner teamwork would apply to a man who goes blind in early adulthood, and instead of feeling devastated, the man may be more likely to be happier than he and those around him would have expected. Though somebody may not be happy about circumstances that they are in, their psychological immune system puts in effect the use of synthetic happiness, so to not completely shutdown when something unfortunate happens.

When asked what makes people happy, Gilbert responded with one word, "social." According to Gilbert, humans are the most social species on earth, so if someone were asked to predict the happiness of others they would only need to know a few things about them. The most important thing to know about a person is about their friends and family and how strong their bonds are with each other. People thrive with happiness when surrounded by other people which they are comfortable interacting with. Gilbert also acknowledges other research findings. During an interview Gilbert states, "The psychologist Ed Diener has a finding I really like. He essentially shows that the frequency of your positive experiences is a much better predictor of your happiness than is the intensity of your positive experiences. When we think about what would make us happy, we tend to think of intense events—going on a date with a movie star, winning a Pulitzer, buying a yacht. But Diener and his colleagues have shown that how good your experiences are doesn't matter nearly as much as how many good experiences you have."

A person who has many relatively nice things happen to them are more likely to be happier in the longterm than that of somebody who has few very significant events happen to them.

Many spiritual leaders and religious texts have given advise on how to achieve happiness in both the presence of God or in our peers. A very popular teacher on the lessons of Enlightenment and satisfaction is the 14th Dalai Lama. The Buddhist religious leader believes that a persons peaceful or calm mind is conducive to achieving happiness as he states,

"I believe that the very purpose of life is to seek happiness. That is clear. Whether one believes in this religion or that religion, we all are seeking something better in life. so, i think the very motion of our life is towards happiness."

The Dalai Lama refers to the mind as more than just the intellect and emotions, but as referred to the tibetan word *sem*. *Sem* is related more to the psyche or spirit of a person, including both the heart and mind. The key is in the calming. The greater level of calmness we have in our brains, the greater our peace of mind will be, and with it, a greater ability to enjoy a happy life. The Dalai Lama makes the point in his 2010 book *The Essence of Happiness*, That achieving genuine happiness requires transformation of one's outlook, way of thinking; emphasizing that it is not a simple or easy task. Transforming the mind takes time and through training we can transform ourselves to be in a happier place (spiritually and emotionally).

Similar to caring for the physical body with proper vitamins and nutrients. the way to achieve happiness one needs a variety of approaches and methods to deal with and overcome negative mental states.

"Every day, as soon as you get up, you can develop a sincere positive motivation, thinking, 'I will utilize this day in a more positive way. I should not waste this very day.' And then, at night before bed, check what you've done, asking yourself, 'Did I utilize this day as I planned?" - The Dalai Lama

The Dalai Lama believes that compassion is another important element in the search for happiness.

He writes,"The Tibetan word for compassion, *tse-wa*, refers to an attitude or state of mind that includes not only a wish for the welfare of others, a wish for others to be free of their suffering, but also a wish for good things for oneself."

According to The Dalai Lama, true inner peace can be cultivated by deepening our connection with others and practicing compassion. Other crucial elements that enhance joy in our lives are contentment, a sense of inner worth, leaving behind comparisons and expectations, accepting impermanence, and seeing that you can use all 24 hours of your day for spiritual practice.

The belief that happiness is achievable in even the worst circumstances is a powerful tool that everybody has. The only concern is that people, either through lack of trust or lack of knowledge, prevent themselves from seeing a better tomorrow. Though the research that i have done has not taught me much about HOW to be happy, it has helped me towards the right direction. I believe that everyone can achieve happiness and fulfillment in their daily lives, all they have to do is want it. Happiness is not something we learn, it is something that every person is born with and that every person can easily increase with time and dedication.

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