

THE MANY BLESSINGS OF WINE:
AN EXAMINATION OF COHERENCE

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Chapter 1: Introduction

*"The body must be nourished physically, emotionally, and spiritually.
We're spiritually starving in this culture - not underfed but undernourished."
- Carol Hornig*

Preface

Balance is an often-heard word these days. All one must do is turn on the TV, read Facebook or pick up a newspaper and one may read or hear about the balanced use of the environment, balancing career and home, or perhaps balancing the budget. The challenge here is that most often, when people speak of balance, they are attempting to balance two things; career and family life for example. There always seems to be a dualism; a dichotomy. Right and Wrong. Good and Evil. Positive and Negative. Chaos and Coherence. Balance in a person's life should never be a tug-of-war between perceived opposites but rather something more akin to a building a home. We start with solid foundations on a well-prepared site, we use the best materials we can get our hands on, and we employ architects, engineers, bankers and contractors who know more than we do about the process to assist us in building the best structure possible. From basics to more lofty aspirations, we painstakingly pay attention to the details until we have a home worth bragging about. The mighty oak starts off as nothing more than a small acorn and builds from that simple seed year after year to become what we see in the forest, does it not? The discussion should never be about whether we are living in a world of chaos or one of coherence, but rather where we are at any moment in time in a linear spectrum that has at one end of itself total infinite chaos, and total infinite coherence at the other.

The American psychologist, Abraham Maslow believed that “There are at least five sets of goals, which we may call basic needs. These are briefly physiological, safety, love, self-esteem, and self-actualization.” (Maslow, 394). He goes on to say,

“These basic goals are related to each other, being arranged in a hierarchy of prepotency. ...the most prepotent goal will monopolize consciousness and will tend of itself to organize the recruitment of the various capacities of the organism. The less prepotent needs are minimized, ... when a need is fairly well satisfied, the next prepotent ('higher') need emerges, in turn to dominate the conscious life and to serve as the center of organization of behavior,” (Maslow, 395).

Basically, this theory suggests that a human being will only stretch themselves to a higher state of being when their lower, more base needs are met. For example, if you're worried about whether you'll eat tonight which is more of a physical and security need, you would not care whether you are having red beans and rice or a ribeye. Though seemingly true in the physical state, this theory seems to assume a poor vision of humanity. It sees us in a constant state of desperation, our fight or flight mechanism being the primary force to guide our lives. It describes a model based on competition. Taken a step further, it does not follow the known tenants of basic life on the planet. Does the oak tree mentioned in a previous paragraph wait until it has the proper blend of sunlight, water and fertilizer to grow or does it grow and stretch, against any and all challenges in search of those things?

In the past, this model has meant that we handle the physical needs of our bodies first, followed by any mental and/or emotional needs we may have and finally perhaps a short walk through our spiritual selves usually in the form of some religious belief system and/or church family. This may have worked at the dawn of history, back when we were competing for food and shelter with those who would gladly have made us their lunch, but today life is safer, simpler, and can be much more rewarding if one is willing to perhaps change a few habits and live from a place of coherence, or “wholeness” rather than one of desperation and chaos.

This dissertation shall show the relationship of chaos to coherence, discuss the importance of coherence to the body, mind, and soul, explain the relevance of receiving and giving coherent information both internally and externally, and prove that coherence is the language of the universe.

Why Coherence?

In discussing subjects such as chaos and coherence and their effect on the life and livelihood of human beings, we must first understand why such avocations are even important enough to merit such discussion. Back into time immemorial, just as man has been subject to the laws of time and space, man has also been embroiled in the polarity of chaos and coherence. We see it in all that is mundane and all that is awe inspiring around us. We see it in the cycles of the seasons. We see it in the circle of life. We see it in the day to day operations of simply being human. All religions have their stories, myths and legends and while many of them have creation stories that describe a universe being born from chaos and becoming in some way coherent as it matured, all of them studied for this dissertation show a cycle of man as well as man's gods being good or bad, warlike or peaceful, vengeful or loving, and the list goes on and on.

The Holy Bible discusses these subjects in great depth. A simple search in a concordance of the New King James Version of the scriptures yields the word "sin", which we will take to mean separation from God and therefore a more chaotic state, mentioned 446 times in 393 verses, while the term "holy", which we will assume to be the most coherent state, occurring 637 times in 567 verses. (Nelson, 994, 485). Plainly, the Christian religion has a fixation on chaos and coherence and attempting to move from that state of chaos to one of coherence over one's lifetime.

Accordingly, the Bhagavad Gita speaks of coherence as well when it points out that the purpose of life is to attain love, peace and happiness as well as realize God and our true nature, called Sat Chit Ananda, (Sanskrit: सच्चिदानन्द), which literally means Absolute Bliss Consciousness. "My dear Arjuna, he who engages in My pure devotional service, free from the contamination of fruitive activities and mental speculation, he who works for Me, who makes Me the supreme goal of his life, and who is friendly to every living being – he certainly comes to Me", (Gita.11.55). It also explains the road to chaos; "there are

three gates leading to this hell – lust, anger and greed. Every single man should give these up, for they lead to the degradation of the soul”, (Gita 16.21).

These two examples alone hint at a universal principle. That principle is this: first, certain deeds, thoughts, and lifestyles are inherently chaotic, while others are definitely coherent, and it is better, or perhaps for purposes of this text, more effective to do, think and be in a more coherent state and a less chaotic one.

Definitions

Before we can show a relationship of chaos to coherence or discuss the importance of coherence for ourselves or for the world at large, it would be relevant to agree on and understand the definitions we will be using for both of these terms in this text.

According to Merriam-Webster’s dictionary chaos has two definitions: “ (1) a state of utter confusion or a confused mass or mixture and (2) the confused unorganized state of primordial matter before the creation of distinct forms”. This is the definition we of the modern era are most familiar with. However, if we look into antiquity this is not original meaning of this word. Chaos is a Greek word *khaos*, spelled χάος in the ancient Greek text and refers to the state of complete void before the creation of the universe, and in no way references anything that relates to confusion. In fact, the Greek originally means emptiness, void, or chasm. According to Wikipedia, Chaos, (Greek: χάος, *khaos*) was the first of several Greek deities called the primordial deities. The others were Gaia (Greek: Γαῖα, *Gaia*) which we know to be mother earth, Tartarus (Greek: Τάρταρος *Tartaros*) who is the God that created light and the cosmos, and Eros (Greek: Ἔρως, *Eros*), which is of course the god of love.

Many of the creation stories of antiquity include something in their creation myth that in basic terms explains how chaos gave birth to coherence or coherence was born from or came out of chaos.

The Enuma Elish is the ancient Babylonian creation story and dates back to the Bronze Age, probably around the time of Hammurabi, roughly the 18th to 16th centuries BC. Leonard King's translation states, "When in the height heaven was not named, And the earth beneath did not yet bear a name, And the primeval Apsû, who begat them, And chaos, Tiamat, the mother of them both, Their waters were mingled together" (King, 51). The Holy Bible says, "The earth was without form, and void; and darkness was on the face of the deep. And the Spirit of God was hovering over the face of the waters." (Genesis 1:2, NKJV). Alexander Heibel also points out that there are similarities and parallels with the Enuma Elish and the Holy Bible, "Thus Enuma Elish and Genesis 1:1 – 2:3 both refer to a watery chaos which was separated into heaven and earth", (Heibel, 82). The Maori cultures of the Pacific islands have a creation myth wherein Rangi and Papa the earth and sky deities only give birth to male children who get trapped in the dark cramped nothingness between the earth and the sky. That nothingness can certainly be considered chaos. Norse mythology has a story where the universe started as Ginnungagap, a "chaos of perfect silence and darkness that lay between the homeland of elemental fire, Muspelheim and the homeland of elemental ice, Niflheim". (The Creation of the Cosmos, n.p.). It is then created from three gods Odin, Vili, and Ve who murder and dismember a primordial being named Ymir. From Ymir's body parts come the oceans and the hills and the clouds in the sky. Conceptually, it is not hard to see that dismemberment is another form of chaos, not to mention the original chaos, Ginnungagap. Finally, in Hesiod's account of creation from the ancient Greek traditions, all of the universe springs forth from chaos which is defined by Glenn Most's translation of Hesiod's Theogony as Chasm. "Chasm (not, as it is usually, misleadingly translated, "Chaos") is a gap upon which no footing is possible" (Hesiod, xxxi). This concept of course leads us once again to an understanding of chaos as a void, or absence of anything rather than a disordered mass

By way of comparison, the Quran seems to state that the Universe was a coherent homogeneous entity and was then separated into its present state, "Do not the unbelievers see that the

heavens and the earth were joined together (as one unit of creation), before We clove them asunder?" (Quran 21:30). Google defines coherence as "the quality of being logical and consistent or the quality of forming a unified whole". Researching concordances, as well as versions of scripture for the word "coherent" in fourteen versions of the Holy Bible yielded on one verse from one translation: "Cultivate your own relationship with God, but don't impose it on others. You're fortunate if your behavior and your belief are coherent" (Romans 14:22, MSG). However, using the Google definition of a unified whole we see that Paul admonished the Corinthians that "...our many-ness becomes one-ness - Christ doesn't become fragmented in us. Rather, we become unified in him...", (1 Corinthians 10:17, MSG) and in the Old Testament, when the Israelites return to the promised land from Babylon, we see that "all the people assembled in Jerusalem with a unified purpose", (Ezra 3:1, NLT) to become once again one with God through the rituals and rites they practiced at that time as well as the rebuilding of the altar and the temple.

So, in summary, it could be said that chaos is exactly the totality of nothing, and ultimately this text will show that it is the less effective state while coherence is exactly the totality of everything and is the most effective state.

Ritual in Religion

A brief study of religious belief systems will reveal certain commonalities. First and foremost, all religions believe in some sort of supreme being. The Bible says, "Look now; I myself am He! There is no other god but me!", (Deuteronomy 32:39, NLT). While the Upanishads of the Hindu read, "He is One only without a second", (Chandogya Upanishad 6:21). Next, all religions bring a sense of community to their participants. For example, the Bible says, "Do not stay away from the meetings of the community, as some do, but encourage each other to go; the more so as you see the day drawing near.", (Hebrews 10:25, JB) , while the Quran states, "The believers are a single brotherhood, so make reconciliation

between your brothers, and be mindful of God so you can receive mercy.” (Quran 49:10). Further, each belief system has a way of defining and dealing with wrongdoing. The American Standard Version of the Bible Says “ For whosoever shall keep the whole law, and yet stumble in one point, he is become guilty of all. (James 2:10, ASV), while the Quran promises punishment by God for disobedience, “Allah desires to afflict them for their sins” (Quran 5:49), and according to Mhabharata, one of the many texts of the Bhisma Parva that make up part of the body of knowledge that is the Hindu religion, “In half a verse I will tell you that which is written in hundreds of thousands of Scriptures. Virtue is any act which benefits another, and sin is that deed which causes suffering to others.” (Sharma, 256). And finally, all religions have rituals.

It goes without saying that all religions engage in some sort of prayer. For purposes of brevity, and because prayer is a common theme in all religions, we will discuss prayer only from a Judeo-Christian perspective. According to the Bible there are many types of prayer. Paul in his first letter to Timothy said, “I urge, then, first of all, that requests, prayers, intercession and thanksgiving being made for everyone”, (1Timothy 2:1, NIV). From the original Greek texts we learn that these four prayer types are: Needs or supplications, (*Greek: deésis, δέσεις*), begging or beseeching prayers(*Greek: proseuchas, προσευχάς*), Intercessions and help, (*Greek: enteuxeis, έντεύξεις*) and thanksgiving, (*Greek: eucharistia, εύχαριστία*) from where we get the English word eucharist. (All Greek, 1Timothy 2:1, LEB).

Dr. Leon Master’s has stated that even something as simple as an affirmation can be a prayer. Affirmations “may be spoken or thought of in the context of the practice of METAPHYSICAL PRAYER or SPIRITUAL MIND TREATMENT, which in most cases is one and the same as the practice of metaphysical prayer or affirmative meditation”. (Master’s Degree Curriculum 2, pp 23).

While all religions have rituals surrounding prayer, it turns out that nearly all religions have rituals surrounding prayer and wine, specifically. The Blessing of wine goes back eons. There are records

that as early as 4,000 BCE, the Egyptians were associating several gods with wine. Hathor was the Egyptians' god of wine, and once a year they had an annual "Festival of Drunkenness", (Ngugi, n.p.). "Nearly all Roman religious festivals coincided with important phases of the grape-growing and wine-producing agricultural cycle", (Let Us Adore Drink, n.p.). Asian cultures have associated wine with the spiritual. The Japanese place large casks of sake at Shinto shrines and some Japanese believe "sipping a cup is still a prayerful act of symbolic unification with the gods", (Kazaridaru, n.p.). The Christians have their sacramental wine; it was used in the earliest celebrations of the Lord's Supper. The Catholics call it "*The Most Holy Sacrifice of the Eucharist*", (Ratzinger, 335), and it must be celebrated in bread, and in "wine to which a small quantity of water is added", (The Eucharist, n.p.). The Jewish faith has Kiddush. In general, Buddhists tend to abstain from alcohol as they believe alcohol clouds the consciousness, making it difficult to achieve enlightenment. However, many Buddhists partake in what they call "mindful drinking", (MacKenzie, n.p.), which is essentially a loophole that justifies alcohol as a tool to clear the mind rather than confuse it. Wine as well as other fermented juices is used in the Hindu healing system of Ayurveda. It seems fitting then, as well as funny, that Benjamin Franklin, In a letter to French economist Abbé Andre Morellet in 1779, teased "that the strategic location of the elbow is proof that God desires us to drink wine. After all, had God placed the elbow lower on the arm, our wine glass would never make it all the way to our mouths. Had the elbow been placed higher, our glass would shoot straight past our lips", (Let Us Adore Drink, n.p.).

Prayer and wine. With all religions having some ritual that involves the two of these items being used together, the question comes up, why wine? Why specifically wine? Why not water? Why not beer or some oil or fruit juice or even blood? It may be important to note that all the afore mentioned liquids have rituals in this religion or that, but none of these is as universally used in so many as the fruit of the vine. What is it about blessing wine that makes it so special?

Summation

These and many more questions were asked while ruminating on the subject of this dissertation. If all religions place emphasis on prayer, and in particular the blessing and usually the subsequent consumption or sacrifice of wine, it seems reasonable to assume that there must be some intrinsic value to it. Though they differ in terms of the ritual itself, each religion of the world has similar traits as described in earlier subchapters. Each religion has also defined that which is chaotic, dysfunctional, and ineffective as well as coherent, functional and effective. Finally, each religion has dictated that it is better to live a life from a standard of coherence rather than one of chaos.

This dissertation investigates whether wine is changed by praying over it, what we will refer to in subsequent chapters as “blessing” it, and if changes occur, whether they can be detected through some sort of measuring device. If changes can be detected then they should be able to be recorded, and if so can we should be able to show a pattern of chaos, a pattern of coherence, both or neither. If we can show a pattern, and if that pattern be a change toward more coherent, or to put in more scientific and statistical terms less variant, energetic state, then we can show that blessing wine, and perhaps blessing anything, renders its energy more coherent and therefore more functional, effective and healthy for the body, mind and soul.

Chapter 2: Review of Literature

*“No thing more excellent nor more valuable than Wine
was ever granted mankind by God.”
-Plato*

The Power of Prayer

Now that we have agreement as to the difference between chaos and coherence, it would be prudent to understand the purpose of prayer from a scientific perspective. Dr Leon Master's points out that "Spiritual Science Prayer is actually based on the Mystical Reality underscoring the practice of prayer, and that is what makes it different – and thus far more effective.", (Minister's/Bachelor's, Vol 4, 57). According to Dr Masters, Spiritual Science Prayer is "based on complete faith and expectation that the prayer will be answered", (Minister's/Bachelor's Curriculum 4, pp 58).

In 1 Thessalonians, Paul admonishes the church at Thessalonica to "be happy at all times; pray constantly; and for all things give thanks to God, because this is what God expects us to do in Christ Jesus.", (1 Thessalonians 5:16 – 18, JB). The Bhagavad-Gita says "...just fix your mind upon me and engage all your intelligence in me" (Bhagavad Gita 12:8), where we take fixing one's mind and engaging one's intelligence to be the act of prayer. Prayer is the center of the Islamic faith and Muslims offer prayers five times a day if they are Orthodox. They call it Salah. Muslims are advised, "O you who have believed, seek help through patience and prayer. Indeed, Allah is with the patient", (Quran 2:153).

Prayer, for purposes of this dissertation shall be defined as the marriage of a clear intention with a strong emotion. We can consider faith the intention component and expectation the emotional component. After all, if wine is considered part of what Christians call the Eucharist, and the Greek eucharistia is all about a prayer of thanksgiving, it seems appropriate and correct then, that we would consider blessing wine a prayer, meaning a mindful and physical intention to God, or the Universe or

whatever one wishes to call it, joined with the human emotion and spirit of gratitude which is the state and assumption of the gift having already been given to us.

Prayer then, is a two component formula that , for purposes of this dissertation, shall be given by the equation: $\text{Emotion} + \text{Intent} = \text{Energy}_{(\text{New})}$; Where $\text{Energy}_{(\text{New})}$ is the new level of energy created by the given emotion and intent. This is further, a level of energy that is going to be more coherent than the level prior to such prayer. The question then becomes what sort of intent? What sort of emotion? Will anger work as an emotion or must it be joy? Dr Joe Dispenza, DC has done large scale experiments and data gathering on this subject. In his latest book, *"Becoming Supernatural"*, he explains that the intent must be distinct. "Your clear intention is exactly what it sounds like – you have to get clear on what it is you want to create, getting as specific as possible, and describe it in detail." (Supernatural, 70). Dr. Dispenza has found that emotions that we refer to as heartfelt emotions, those emotions that make your heart feel like it's swelling up, are the best emotions to use. A few examples would be awe and wonder, love and joy, inspiration, and of course gratitude.

Unsurprisingly this is not new knowledge. In the Gospel of John we are told, "whatsoever you ask the father in my name, he will give it to you. Hitherto have ye asked nothing in my name: ask and you shall receive, that your joy may be full", (John 16:23 – 24, AKJV). Note the emphasis on the word "Joy". John is of course quoting Jesus; however this is not even the full picture. Note the difference when we study the original Aramaic text. "All things that you ask straightly, directly... From inside my name – you will be given. So far you haven't done this... So ask without hidden motive and be surrounded by your answer – being developed by what you desire, that your gladness be full", (Douglas – Klotz, 86). While mostly discernable in the Gospel of John, it is certainly is apparent when we look at the Aramaic that clear intent and strong emotion, in this case joy, are highly important to the art of manifestation by way of prayer.

Of those elevated emotions, gratitude is what we will be concerning ourselves with mostly in terms of blessing wine. Of the positive emotions, gratitude appears to be among the most powerful. In *"You Are The Placebo"*, Dr. Dispenza explains why: "it [gratitude] teaches your body emotionally that the event you're grateful for has already happened, because we usually give thanks after a desirable event has occurred", (Placebo, 135). Gratitude then, we can assume to be a highly ordered, or highly coherent emotion.

Biology and Blessing

Science and spirituality have been exclusive of one another for hundreds of years; although if one looks at the historical record prior to the reformation they will see that science was the magical world of the priestly class and joined with religious thought indistinguishably. Melissa Suran writes in her 2010 article for the journal, *"EMBO Reports"*, "Since 1633, when Galileo Galilei faced the Roman Inquisition to answer for his discovery that the Earth revolves around the sun, there has been an often uneasy relationship between church and science." (Suran, 586). Indeed, by the early 1600's the inquisition was in full swing. The rift between the church and all that which would be the realm of the church; the mind, the thoughts and the spirit of the people and science, (or heresy depending on whom you spoke with), and all the "physical" world with its seemingly mechanical, predictable, well-defined answers to life's questions was daily widening.

Noticeable in the 1960s but probably starting earlier with the discoveries of such great thinkers as Albert Einstein, Erwin Schrodinger, and Max Plank, western society began to shift again, and the concepts surrounding science and those surrounding spirituality began once again to merge. Max Planck the eminent physicist once wrote, "science cannot solve the ultimate mystery of nature and that is because, in the last analysis, we ourselves are part of nature and therefore part of the mystery that we are trying to solve", (Planck, 217). With the birth of quantum mechanics religion and science were to

once again join forces in order to solve the questions that humans have been asking themselves since the dawn of time.

In 1972, in a small lab at John's Hopkins University, a PhD candidate by the name of Candace Pert was busy doing her part to combat Nixon's new war on drugs. Nixon was going after heroin and heroin addicts specifically and there was talk in the media about scientists creating some sort of magic bullet to help the addicts overcome their addiction. Many labs throughout the country were trying to come up with a connection between this dangerous opiate and the addiction it seemingly caused to the body. While working one evening Candace discovered a bit of a cell that came to be called the opiate receptor. We now know that all cells have many receptors of many different types on them, and associated hormones, neurotransmitters, and peptides that fit those receptors work similar much the same way that a lock works with a key; opening the receptor and allowing information exchange across the cell wall thereby allowing the cell to do some sort of task or number of tasks. This simple discovery, like Einstein's theory of relativity would have massive implications, ultimately changing forever the way we look at biological systems, biochemistry, physiology, psychology, and life in general.

Meanwhile, A biochemist from the University of Minnesota, Tian Yow Tsong, had discovered that cell receptors were also able to read vibrational and electromagnetic fields such as sound, light, and radio waves via the bio-chemical equivalent to antennas within their structures. As Bruce Lipton put it in his book, *Biology of Belief*, " the notion that only physical molecules can impact cell physiology is outmoded. Biological behavior can now be controlled by invisible forces, including thought", (Biology, 53). It seems that there is more to our biology than the gears of a chemical and bio-chemical machine. It would appear that how we think and maybe even how we feel directly effects how we exist.

Let's examine a short story for just a moment and put it into perspective. According to NASA, the Pioneer 10 spacecraft, which was launched in 1983, became the first man made craft to go beyond

our solar system, and explore deep space. The onboard transmitter for this spacecraft had a power source with about the output wattage of a human heart. That tiny amount of power was able to send a signal back to earth to be picked up by NASA scientists over more than 3.7 billion miles. It was able to send a signal at the speed of light for more than 11 hours and hit a target billions of miles away. If a chunk of metal and computer chips can push an electromagnetic wave that far, imagine what our own heart can do right here in our body.

HearthMath, a research institute in Boulder Creek, California has done extensive research into the power of our heart as it pertains to intent and emotion. From Rollin McCraty's Book, "Science of the Heart ", it is reported that, "we have found that the heart plays a central role in the generation of emotional experience and therefore in the establishment of psychophysiological coherence", (McCraty, 29). This institute reports primarily on a phenomenon known as heart rate variability, (HRV), which is an indicator of self-regulatory capacity and autonomic function. In a nutshell HRV is the measure of the normally occurring beat to beat changes within the heart rate. While this variability changes from moment to moment and also over the course of a person's lifetime, it is basically a measure of heart rate accelerations and decelerations over the total rhythm of the heart.

For sake of brevity, when we elicit strong positive emotions such as gratitude or joy or compassion or love our heart goes into what HeartMath describes as heart coherence. When our heart goes into coherence our body produces hormones and neurotransmitters conducive with health; which is our more relaxed state. When our heart is not in a coherent state, we produce the hormones and neurotransmitters associated with survival; our fight or flight mechanisms. While, these hormones are useful when we are in a crisis situation, they can cause mental, and physical issues ending in poor health or even death if they are not used sparingly and kept in balance with those hormones and neurotransmitters used by the parasympathetic system; those associated with what we call the "rest and digest" mode of our bodies. When we produce enough of these more coherent hormones and

produce them on a regular basis the receptors on our cells become better at communicating amongst themselves and with their environment. However, if we are in a constant state of crisis, always fearful or always stressed, then our bodies will create more receptors on the cells to deal with the extra adrenalin, and cortisol and other survival chemicals and eventually our body will not only fall out of balance, but will become addicted to that out of balance state.

Our heart seems to be the key. In the Hindu tradition the heart chakra is the fourth of the seven. “It is the middle chakra and all below it are considered the more physical chakras while those above it are considered the more spiritual”, (Susoeff, 5). Based on this fact alone, it is not a stretch to see the heart as the center for all things in the body both physical and energetic. In the book of Proverbs it is written, “Above all else, guard your heart, for everything you do flows from it”, (Proverbs 27:19, NIV). In the Bhagavad-Gita it is clear that Krishna lives within the hearts of all men, “Sri Krishna said: ‘O Arjuna, I am seated in everyone’s heart, and from Me come remembrance, knowledge and forgetfulness’”, (Bhagavad-Gita 15:15). So, what the sages have known for millennia we are now able to prove with science. Perhaps this is why the ancients developed rituals aligned around blessings and prayers. They may not have had the technological tools to measure all the data produced, but they probably could see that from generation to generation the folks who prayed over food before they ate it, or blessed their wine, or spent time in joy and empathy just seemed to live longer and healthier.

Quantum Physics

At the turn of the century, some of the greatest minds the world has ever known such as Albert Einstein, Erwin Schrodinger and Max Plank were doing their work in what came to be known as quantum physics or also known as quantum mechanics. Prior to their discoveries the world believed that all science could be explained systematically and mechanistically; that is everything in nature behaved like a machine. As we became able to measure things at a more and more micro as well as more and

more macro level we became aware of many discontinuities in this theory. It is not within the scope of this dissertation to discuss all the mathematics involved, however, several new truths have emerged in the last hundred or so years. The following paragraphs will try to address these truths in a nonscientific and non-mathematical way.

However, before we discuss these new truths, it is paramount that we understand what we are actually discussing. Since frequency, vibration, amplitude and cycle are words that are very often used interchangeably and more often incorrectly by those in the world of metaphysics; what follows is a “physics for dummies” version for non-mathematics oriented individuals. Everything in nature has a vibration. There is nothing that exists that does not move. Frequency is not vibration, although it is a parameter of it. Frequency is merely how many cycles a particular object might vibrate in a single second. (see figure 1).

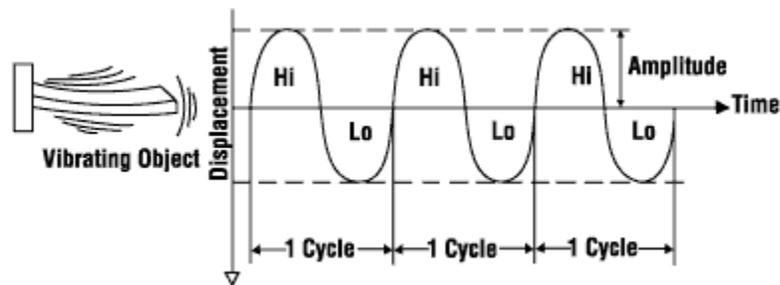


Figure 1: “graph025.gif” https://www.ccohs.ca/oshanswers/phys_agents/vibration/vibration_intro.html Canadian Centre for Occupational Health and Safety. Government of Canada. 8-22-2018. Web. Accessed: August 28, 2018

Whether something has a high frequency, meaning its amplitude completes more cycles per second than something of lower frequency, has no bearing on its spiritual value. It may describe whether it shows up to our five senses or remains more “subtle”, however we will discuss that later in this chapter. Also a higher “vibration”; what should really be referred to as a larger or faster vibration is not indicative of something “better” or “worse”, it is merely a different type of information transmitting at a different intensity. Finally, just because something has a high vibration does not necessarily follow that it has a higher frequency, and none of that has anything to do with anything spiritual or metaphysical; although

it could be argued that certain frequencies of certain vibrations, when applied in a more coherent and less chaotic fashion are more useful for communication between entities whether those entities be two people, a group of cells in a tissue, or an entity that we would consider “physical” and/or another that we might consider “subtle”.

Truth number one. Everything is composed of particles of light called photons. Before any of the great minds mentioned above, science had already determined that light was a bit of a paradox. It acted like a wave sometimes and other times it acted like a particle. Well, we can't have a paradox in science, so the physicists began to investigate. Max Plank described this through $E=hf$, which means the energy, (E), is equal to some constant h which he of course called Planck's constant multiplied by the frequency of the energy observed, (f). Einstein added to Plank's equation, observing that $E=mc^2$. This is often times mistakenly taken to mean that as one approaches the speed of light one changes from mass, that is something physical, to energy, that is something non-physical. This is simply *not* the case. Again we have a problem of non-math or science folks retelling stories that they do completely understand and getting confused. For starters, in order to “become” energy, one would have to approach the speed of light times itself; the speed of light squared, (note the superscript 2 in the equation). That being said, Einstein's “*Theory of Special Relativity*” is simply this: “1. The laws of physics are invariant (i.e., identical) in all inertial systems (i.e., non-accelerating frames of reference)”, and “2. The speed of light in a vacuum is the same for all observers, regardless of the motion of the light source”, (Special Relativity, n.p.) . What that means in layman's terms is: as long as a person is standing still or moving at a constant speed, (not accelerating), he will observe the same effect as another person standing still or moving on the same trajectory. ABC News words it well:, “According to the special theory of relativity, the speed of particles of light in a vacuum, such as outer space, is the only absolute measurement in the universe. The speed of everything else — rockets or inchworms — is relative to the observer”. None of this has anything to do with energy becoming mass, or mass becoming energy or either of them becoming light.

Light is, in its most simple term made of a unit of measure called a photon. A photon has zero mass, meaning it weighs exactly nothing, and always moves at the speed of light, 186,000 miles per second.

At this juncture, it may be noteworthy to add that thanks to advances in science, even this last sentence is up for grabs. As of the writing of this dissertation, new experiments are beginning to show that not even the speed of light is a constant. According to ABC News, scientists at the prestigious New Jersey University, Princeton “sent a pulse of laser light through cesium vapor so quickly that it left the chamber before it had even finished entering.” (Dominguez, n.p.). Further research reveals that similar experiments have been conducted recently at UC Berkeley and the CERN collider facility in Italy.

Truth number two. Electrons either emit photons or destroy photons. According to the webpage, “*Ask an Astronomer*”, “The simplest explanation of this phenomenon is that when a photon is absorbed by an electron, it is completely destroyed.” (Kornreich, n.p.). When that happens, the electron instantly jumps to a higher energetic level when it absorbs a photon. In contrast, it drops to a lower energy state when it emits one. Contrary to the Newtonian physics law known as conservation of energy, wherein energy can neither be created nor destroyed; rather, it can only be transformed or transferred from one form to another, the photon is actually created or destroyed. It seems to be created from absolutely nowhere and when destroyed it seems to absolutely disappear. Further, there is apparently no period of time while a photon is being created; it merely “pops into existence”, (Kornreich, n.p.); which leads us to the concept of non-locality.

Truth number three. electrons and photons are non-local events. An electron acts like a wave. Then it acts like a particle. If we look at it, we see it. As we turn our backs, it disappears. Schrodinger, like many physicists of his time, struggled with this paradox. In figure 2 we can see that Schrodinger’s equation is...

The diagram shows the Schrödinger wave equation: $\frac{\partial^2 \psi}{\partial x^2} + \frac{8\pi^2 m}{h^2} (E - V) \psi = 0$. Arrows point from text labels to specific parts of the equation: 'Second derivative with respect to X' points to $\frac{\partial^2 \psi}{\partial x^2}$; 'Shrodinger Wave Function' points to ψ ; 'Position' points to x ; 'Energy' points to E ; and 'Potential Energy' points to V .

Figure 2: "ae329a.jpg" <http://www.physlink.com/education/askexperts/ae329.cfm> PhysLink.com: Physics and Astronomy Online. N.D. Web. Accessed: August 28, 2018

Well... pretty complicated, even to an engineer or physicist. Again, explaining the math behind this is far beyond the scope of this paper, however, what this bit of calculus describes is simply this: The electron within a particular atom can be anywhere in an area of "possibility" and that area of possibility gives the electron an infinite number of places it could be. There is also evidence to show that the electron can appear in more than one place at once. Further, this phenomenon has been experimentally proven with photons. Now, we have all heard, "you can't be in two places at the same time" but apparently, if you are an electron or a photon: you can. This is the crux of Heisenberg's Uncertainty Principle. Dr Fred Allan Wolf, in is ground breaking book, *"Taking the Quantum Leap"* says it well, "Heisenberg recognized that observation, as we actually experience, does not allow us to analyze motion on to infinity. Sooner or later we see that activity introduces discontinuities in whatever it is that we are observing", (Wolf, 21). Non-locality will be considered in more depth later in Chapter 5: Discussion.

So if we as the observer affect the outcome, and it seems that we do, then this raises numerous questions. How much do we effect it? Can our thoughts change the outcome of a situation? Is prayer or meditation or non-medical healing modalities actually real? Are miracles actually possible? Are we even here or are we a figment of our own imaginations or the imagination of some other greater being? Perhaps it is all just a question of how far down the rabbit hole one wants to go.

Prose and Placebos

In 1843 a young Englishman by the name of Charles Dickens published a novella with the title “*A Christmas Carol in Prose, Being a Ghost Story of Christmas*”. Most of us know a Christmas Carol as the story of Ebenezer Scrooge an old bitter miser who is visited by some ghosts that ultimately set him straight about the true meaning of Christmas. Dickens’ masterful tale is not as easy as a bad dream from too much sweets before bedtime, it’s an exposition as to the depths of the potentials of parallel universes based in an infinite field of possibilities containing every decision we’ve ever made are making now, and ever will make. Think of it in your own life, what if just one decision changed over here, or you did something different over there? What if, as in the movie “*It’s a Wonderful Life*” you got the opportunity to see a universe where you were never even born? Or what if your life was really just like Bill Murrays character in “*Groundhog Day*”, and you repeated the same day, year after year, for eons? What sort of impact do you make on the overall life of the planet just by being here? It would seem that we no longer get to consider these questions the prose of poets and philosophers; based on recent experiments and data collection, we have the answers to these questions now through science.

Chapter 3: Methods

*“The difference between Science and Faith is a Measuring Tape”
-Allan R Susoeff, Jr.*

Electrophotonic Imaging: An Introduction

In order to fully understand the methods used for experimentation it is important to first explain the basics of Electrophotonic Imaging. Electrophotonic Imaging (*EPI*) is also referred to as “ ‘electrography’, ‘electrophotography’, ‘corona discharge photography’ (CDP), ‘bioelectrography’, ‘gas discharge visualization (GDV)’, ‘electrophotonic imaging (EPI)’, and, in Russian literature, ‘Kirlianography’ “, (Kirlian Photography, n.p.). EPI is based on the measurement and subsequent analysis of the coronal discharge or Kirlian effect of a given material. In this dissertation it will generally be referred to as GDV or EPI.

“Kirlian Effect is a visible electro-photonic glow of an object ... in response to pulsed electrical field excitation”, (Kirlian Effect, n.p.). As a result of a high voltage perturbation, which in the case of the device used for this dissertation is 4000 volts, , A glow or "energy field" known as a coronal discharge surrounds the object's surface when it is placed in such a charged electrical field. It can then be photographed and later analyzed.

The idea of capturing electron and photon emissions of humans as well as other biological and for that matter, non-biological objects, in electromagnetically charged fields has been known for more than two centuries, although there were very few scientists prior to the 20th century who produced electro-photographs. It was Semyon and Valentina Kirlian in 1939 who are credited with the discovery of this type of imaging. As Wikipedia points out, “The Kirlians conducted experiments in which photographic film was placed on top of a conducting plate, and another conductor was attached to a hand, a leaf or other plant material. The conductors were energized by a high-frequency high-voltage

power source, producing photographic images typically showing a silhouette of the object surrounded by an aura of light.” Due to the work of this Russian couple this high-frequency photography method became widely known in eastern Europe and Russia as the Kirlian Effect.

Kirlian photography analysis has become widespread as a method of research studies related to energy emissions. There are currently over one thousand publications available on a variety of subjects related to this topic. A great resource for such publications is the international Union of Medical and Applied Bioelectrography; their website is www.iumab.org.

Bio-Well™ and GDV

Bio-Well™ is the invention of Dr. Konstantin Korotkov, PhD. Based in Kirlian Photography, Dr Korotkov developed the technique of Gas Discharge Visualization. According to ThinkTankGreen.com, “GDV is based on electrical activity of the human organism. In a disease condition the electrical activity of the human body is measurably different than that of the electrical activity in a healthy state... Capturing the natural Electrophotonic emission of the human body, referred to as a Glow Image, allows one to identify the functional state of an individual in real-time.” (“What is GDV”, n.p.)

Although the Bio-Well™ is designed primarily for use as a diagnostic tool in the medical, health, and wellness fields the device was re-tasked with the aid of an oxidation reduction potential (*ORP*) sensor to perform our analysis in these experiments. An *ORP* sensor is a popular water quality sensor that is normally measured as the voltage between a small platinum electrode typically at the bottom of the sensor and a reference electrode, typically on the side of the sensor. The entire apparatus is encased in glass, and in the case of the Bio-Well™ plugs into the calibration unit which is then plugged into the Bio-Well™. The calibration unit sits in contact with the glass electrode of the equipment and when the voltage is passed through the Bio-Well™ electrode, it is passed through the calibration unit to the *ORP*

sensor which then “reads” the oxygen reduction potential of the liquid and sends this back to the calibration unit as a pulse of energy which causes a Glow Image on the glass electrode of the unit.

The Bio-Well™ machine measures four attributes of the energy emitted from the human, other organic life form, solid, liquid, or environment being tested. These attributes are the Area of the glow within the Glow Image in pixels (Px), the Intensity of the glow of the Glow Image measured in relative units (RU), the Energy emitted from the glow in micro joules, ($J \times 10^{-2}$), and the Deviation in the above three mentioned attributes as a function of the standard deviation over time, ($Dev S$).

The equipment further offers several different modes of testing which include a “full scan” of the human body, a “two fingered” scan of the human body, a “stress test” which is also specifically designed to be used on human beings, and then two other test methods which are called “environment” and “meditation”. The environment scan is the one used in our method.

Setting up the Experiment

In order to conduct a scan, the sensor must be placed in a fluid in such a way that it does not touch the bottom or the sides of the container. This is accomplished by the use of the 250 mL Erlenmeyer flask with a rubber stopper that has had a hole 3/8 inch in diameter bored through the center of it. The sensor is inserted in the hole so that it hangs in the center of the Erlenmeyer flask without touching the sides or the bottom when the stopper is inserted in the top of the flask. The wire for the sensor is then inserted into the calibration unit which is in turn placed in the Bio-Well™ device. See figure 3 on the next page.

It is important to note that the Bio-well™ is sensitive to fluctuations in temperature or barometric pressure. If the temperature fluctuates by more than 5°C or the barometric pressure fluctuates by more than 5% it can throw off test results and so that test must be discarded. The

equipment is also highly sensitive to electromagnetic fields, so no cell phones can be used in proximity of the device and the Erlenmeyer flask was placed in a static bag (faraday bag), in order to produce a faraday effect, shielding the liquid from any sort of emf contamination. See figure 4 on the next page.

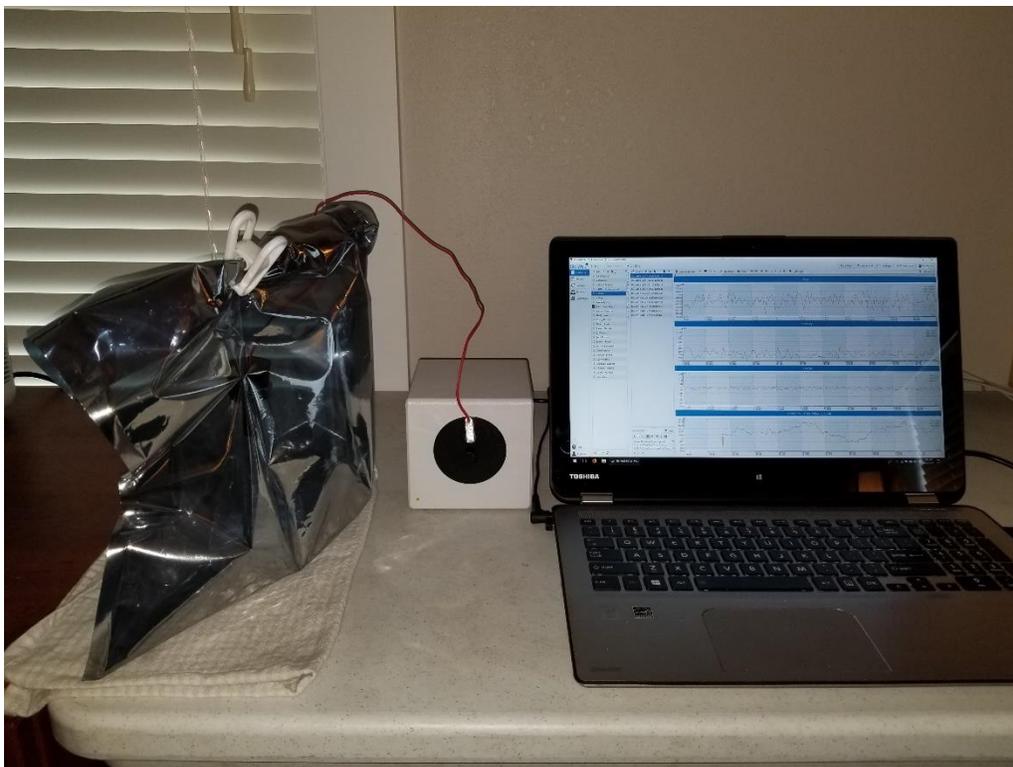


Figure 4: Typical Assay Setup with Static bag



Figure 3: ORP Sensor in Flask connected to Bio-Well

In order to have multiple layers of control, the wine was tested under several conditions before any real data in terms of the actual experiment was recorded. Wine was tested in and out of the faraday bags. Wine was tested under various temperature constraints. We tested different wines from different wineries in different varietals such as Malbec, Cabernet Sauvignon, and Chardonnay. From these initial tests we determined that Cabernet Sauvignon and Malbec and the family of deeper red blends yielded the most consistent results.

To set up the actual experiment, a sample of wine measuring 250 mL was placed in the Erlenmeyer flask. This sample was poured from a freshly opened 750 mL bottle. The remainder of the bottle was capped with a vacuum capping system designed to preserve the contents of the bottle. The cap allows the wine to be pumped down by means of a hand pump, removing the air from the inside the bottle and therefore retaining the rest of the wine in that bottle in its original non-oxidized state while the first part of this experiment is conducted. The equipment is produced by PROiMB and can be purchased through amazon. The vendor reports that wine stays fresh for up to a week but offers no independent data on this point. No testing was performed to prove the wine's level of oxidation. It is further assumed and maintained that if the wine stays fresh for up to a week with the use of the vacuum pump then the effect over the course of a few hours of use for the performed tests will be minimal.

The time, the temperature of the wine in Fahrenheit, temperature of the room in Fahrenheit, the relative humidity, and the barometric pressure at the beginning and end of the test are all recorded. This was to ensure that a fluctuation of 5% never occurred in any given test, per to limitations of the equipment as mentioned earlier. Also, the wine, variety, year, and winery were recorded. The stopper with the ORP sensor is inserted into the top of the flask and the entire apparatus is then placed into a faraday secure static bag. The Bio-Well™ is set to environment test and the test was allowed to run for a minimum of 60 minutes.

Upon completion of the control test stated above, a second flask was filled from the same bottle of wine. That flask was blessed using the intent/emotion formula for blessing described in Chapter 2: Review of Literature. The flask was then measured using all the same criteria and in the same manner listed above.

As stated in previous subchapters, there are four criteria measured by the Bio-Well™. The Bio-Well™ takes a measurement of these four criteria every five seconds during environment test. This means that an hour-long test will yield 720 data points for every criteria for a total of 2880 data points per test; this is a minimum. When each test is complete, the data is downloaded from the server into a CSV file for further processing.

Working with the Data

When a test is complete, it is saved in the Bio-Well™ software, and then it is upload to the Bio-Well™ cloud where the four criteria are calculated. It is then saved as a CSV file. The CSV file is imported into Excel for further analysis. The first thing that must be done is to make sure that there has not been a 5% increase or decrease in the temperature or the barometric pressure during the course of any one of the tests or of any of the series of tests when comparing a blessed sample to a non-blessed sample. If there's been a 5% increase or decrease, then those results must be thrown out.

Data analysis itself is performed through Excel by a statistical analysis add-on known as XLStat. 95% confidence ellipses are produced for the area, intensity, and energy, as a function of the deviation on both the blessed and unblessed wine. A statistical analysis is performed further to show that the wine that is blessed is or is not significantly different from the un-blessed product. Statistical and graphic results are produced from the data and are contained in Chapter 4: Findings. For purposes of readability and flow, some charts and data will be omitted from Chapter 4: Findings, however full Analysis and all charts are contained in Appendix A: Charts and Appendix B: Statistics.

Chapter 4: Findings

*“We should never wait for science to give us permission to do the uncommon; if we do, then we are turning science into another religion.”
-Joe Dispenza*

The Procedure

The experiment consisted of 11 assays of three different types of red wine blessed by 5 people over a 6 month period. The first assays were conducted in March of 2018 and the final assay was conducted in September of 2018. According to Dr Joe Dispenza, “Only when subjects held both heightened emotions and clear objectives in alignment were they able to produce the intended effect”, (Breaking, 20) Based on this premise, blessing was defined as the combination of a clear intention with a strong emotion as discussed in detail in Chapter 2. Although it was suggested to test subjects that the best strong emotions were those such as love or joy or gratitude, and that an intention should be in line with that subjects greatest good, no limitation was put on either the subject’s intention nor the emotion chosen. The intention could have been homicide and the emotion could have been rage or anger. This scenario still would have satisfied the rule of a clear intent with a strong emotion. None of the participants indicated that they used an intention/emotion combination that was negative.

Prior to a blessing two 250ml Erlenmeyer flasks were filled with the same type of red wine from the same bottle. One flask was set up in accordance with the methods outlined in the previous chapter and tested and data recorded for a baseline energy value of that bottle at that time under the given circumstance of temperature, barometric pressure and time of day for that particular assay. The temperature of the wine was taken at the start and at the end of the test, as was the barometric pressure.

Subjects were asked to hold a 250ml Erlenmeyer flask filled with one of the three types of red wine and to bless it. They did not touch the wine itself so any transfer of energy, whether subtle or Newtonian had to have occurred through the borosilicate glass of the flask. No time limitation was put on this part of the process; however, it was visually observed that each subject spent between 15 seconds and 1 minute in the process of blessing the wine. When the subject indicated that they had completed the blessing, the flask was placed in the faraday bag, and the flask was tested, and data collected in accordance with the methods outlined in Chapter 3.

At the end of each test, the data was compiled in the Bio-well™ cloud using proprietary algorithms created by the makers of Bio-well™ and the final numbers were translated to a CSV file which was then downloaded to XLStat for further processing. Of the four data criteria collected by the Bio-well™, the two of concern for this dissertation are the energy output given in micro joules and the deviation S over a given period of time. To give a non-science person an idea of what a micro joule is, one joule is the equivalent of one watt of power radiated for one second. So as an example, a 100 watt bulb turned on for 1 second will yield 100 joules of energy. Deviation S is a measure of the standard deviation of 20 seconds of collected information on the Bio-well™, measured dynamically from reading to reading.

Coherence in Curves

James Redfield is quoted as saying, “where attention goes, energy flows”, (Redfield, 72) In 1997, when he wrote the Celestine Vision, this sentiment was simply that; an idea. Now, in the second decade of the new millennium, what was once the philosophical imaginings of a new age author has become measurable scientific fact. In the following paragraphs this dissertation will go into the results in greater detail; however, to be absolutely succinct we will state unequivocally: The blessed wine is in every case energetically different from the unblessed wine.

Not just in a few assays, but in every assay. In some assays it was changed only a little bit, and in others it was a large shift, but in every single assay something happened to the electrophotonic discharge that was not the same as the wine that came straight from the bottle. Appendix A contains charts for each experiment. The charts show unblest wine in red with 95% confidence ellipses and the blest wine in blue, also with 95% confidence ellipses. A 95% confidence ellipse is a visual method in visual multivariate and bivariate statistics that describes the variance of the mean within all the results. In laymen's terms, high variance will result in data points that are all over the place, which yields a mean that is not well estimated, so the confidence ellipse will be larger; whereas if the results are less variable, or what we will call in this dissertation more coherent, the ellipse will be smaller. For purposes of this dissertation the blest wine is more coherent when the blue ellipse is smaller than the red ellipse.

In chart 1, below, we can see an example of change in variance from a more chaotic state to a more coherent state. This assay was performed using Cabernet Sauvignon, by a 53 year old male who

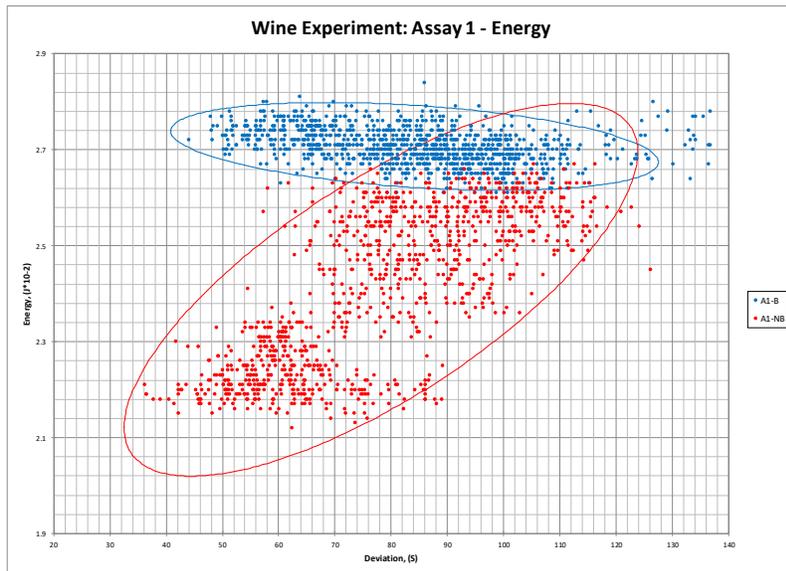


Figure 5: 53 Y.O. Male, Cabernet Sauvignon

has been trained in meditation. The assay was performed in early March 2018 in the morning. These results show a wine that is very different in terms of the energy output from the unblessed wine. The energy is generally higher, more organized, (coherent) and with smaller deviation.

Though each assay showed a difference from the unblessed wine to the blessed wine, not all assays matched up exactly to one another; in fact the results were often unpredictable. Assay 9, shown in chart 2, below, gives us another scenario. These results show a wine that is not very different in terms of the energy output from the unblessed wine in that the ellipse for the blessed wine lays totally within the ellipse for the unblessed wine. Still, the energy is definitely more coherent and with a much smaller deviation. The subject in this assay was a 46 year old female, with a background in meditation, yoga and coaching. The wine was also a cabernet sauvignon.

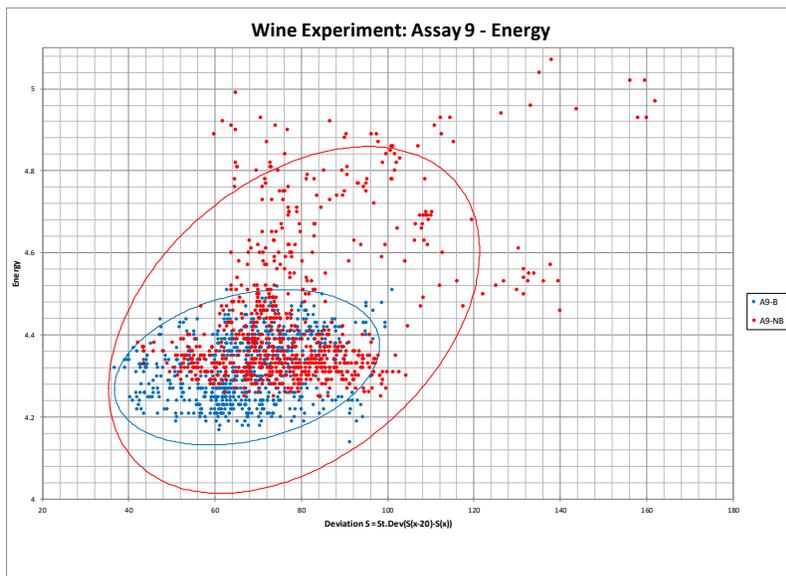


Figure 6: 48 Y.O. Female, Cabernet Sauvignon

Of the eleven assays, eight showed an increase in coherence and three showed a decrease in coherence. The following chart details an assay that was less than coherent. The subject was a 30 year old woman who is a practicing shaman and purports to be a wiccan. She indicated that she does not do

much meditation, but practices yoga. She also reported that she performs spells in the wiccan and American Indian traditions. We can see from chart 3 that even though the energy of the blessed wine in her assay was much higher than the unblessed wine, it is far more variant, (chaotic). In fact, an inspection of the x-axis of the chart will show that the unblessed wine is similar to all the other unblessed wines in other assays, in that the Deviation (S) is between 40 and 100, which seemed to be the general case regardless of the type of wine used. However, the blessed wine in this case is not only less coherent, it is chaotic on an order of magnitude of roughly five times; some of the deviations from the mean are more than 400. The average deviation of the blessed wine in every other case fell in the 20 to 100 range.

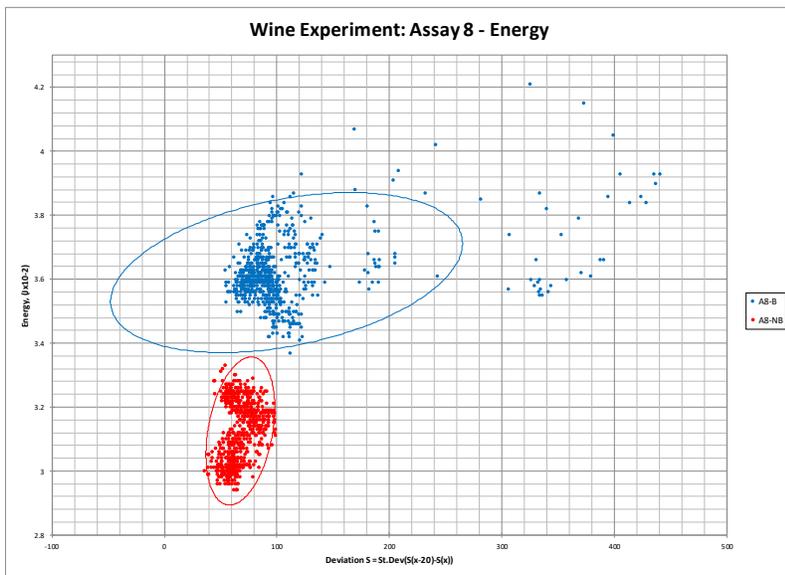


Figure 7: 30 Y.O. Female, Cabernet Sauvignon

Finally, in the last assay performed which was in early September 2018, it was observed that the ellipse of the blessed wine was not touching the ellipse of the unblessed wine in any way what so ever. This shows us a wine that is not only completely different from the original in terms of its energy output, but a glance the ellipses look nearly identical. Also, we see that the deviation of the overall results falls

from 96 to 46, for an average of 50 whereas the deviation of the unblessed wine falls between 88 and 42, for an average of 46. Though different from one another, these deviations are very similar, particularly when compared to other assays. The subject was a 48 year old female who is not a practicing meditator, but admits to being in her words, a “person of faith”. This subject took part in two assays. It also may be important to note that both her assays looked similar and she reported “trying harder” in this, the second assay, as well as having a “very intense intention” regarding a person of romantic interest in her life.

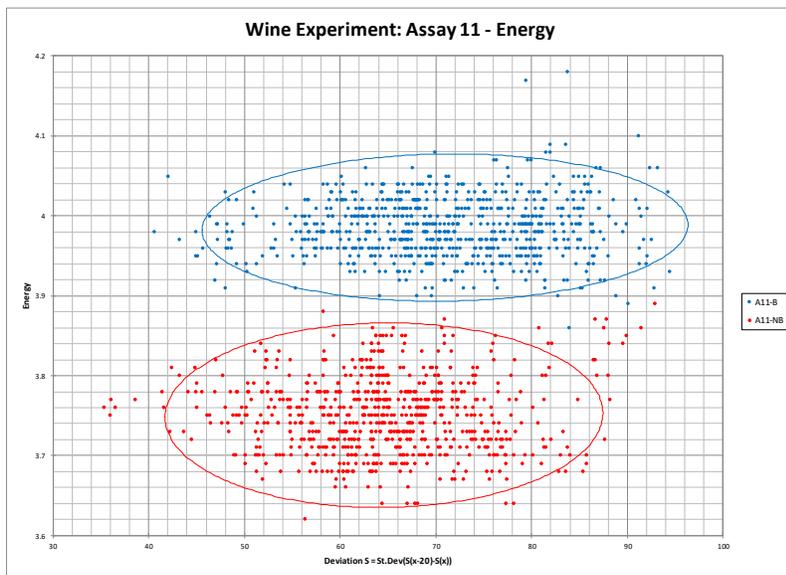


Figure 8: 48 Y.O. Female, Cabernet Sauvignon

Statistics

Pictures and graphs are wonderful tools to illustrate ideas and convey information but at the end of the day, empirical science demands proof in the form of balanced mathematical equations and strong statistical analysis. The charts shown in the previous chapter and in Appendix A will give the reader a great idea of what has happened to the wine before and after blessing it; however, what follows is the most important part of this dissertation: the mathematical and statistical proof that a

more coherent state is obtained when an object is imbued with clear intent married to a strong emotion, that is, when an object is blessed by a human being.

Statistics can be a confusing and challenging branch of mathematics. According to Wikipedia, “Statistics is a branch of mathematics dealing with data collection, organization, analysis, interpretation and presentation”. There are two main areas of statistics: inferential statistics which draws conclusions based on subjects with random variation like sampling variation or observational errors and descriptive statistics which summarizes data using indices such as mean, mode, and standard deviation. This dissertation uses descriptive statistics and knowing from experience with the equipment that the curves are not normal curves it further uses non-parametric as opposed to parametric testing of data.

The non-parametric test used in these data sets is a Mann-Whitney U Test. This test is used to determine whether two independent samples, in this case two samples of wine, were selected from populations having the same distribution. One would immediately think that such as distribution is always going to be true, after all the wine for both the unblessed and the blessed tests within each assay are derived from the same bottle, poured at the same time, and tested consecutively. This assumed truth becomes the null hypothesis and is what we test against. In other words, we are attempting through this statistical test to show the probability that the null hypothesis, that the wine is the same, is true or not true. Generally, to reject the null hypothesis, (meaning the two wines are statistically different), an alpha of 5% is sufficient. This dissertation seeks tighter numbers and so the alpha was set to 1%. As results are computed, if the p-value is lower than the significance level $\alpha = 0.01$, one should reject the null hypothesis, and accept the alternative hypothesis which is that the wine has been changed. Note that statistics does not say with certainty that the wine *IS* changed, but rather that if the $p\text{-value} < 0.01$ there is a 99% probability that the two flasks are different. The full descriptive statistics for each Mann Whitney test of each assay are contained in Appendix B. The Table in Figure 9 gives the general results for each assay. There are several important points to consider from the information in

this table. First note that in every case the p-value is far less than the alpha. As mentioned

Wine Experiment					
Table of Results					
Mann-Whitney U Test					
Assay #	U	Expected Value	Variance, (U)	p-value	alpha
1	0.00	554,354.50	194,655,742.87	<0.0001	0.01
2	1,055,165.50	547,560.00	190,929,663.12	<0.0001	0.01
3	1,022,255.50	624,834.00	233,212,745.58	<0.0001	0.01
4	72,406.50	845,352.00	373,133,411.69	<0.0001	0.01
5	7,631.00	527,875.00	180,677,731.08	<0.0001	0.01
6	738,116.50	1,199,184.00	669,134,194.64	<0.0001	0.01
7	255,214.00	430,638.50	132,856,949.12	<0.0001	0.01
8	0.00	246,401.50	57,676,684.05	<0.0001	0.01
9	403,739.00	284,886.00	71,751,981.70	<0.0001	0.01
10	772.50	246,753.00	57,725,054.98	<0.0001	0.01
11	8.50	258,001.00	61,747,679.70	<0.0001	0.01

Figure 9: Table: Mann-Whitney Results

earlier in the text, if the p-value is less than the alpha, then the two data sets are significantly different.

This is true in every single case.

A quantitative measure of the variance, or lack of variance was beyond the scope of this experiment. For purposes of the dissertation two main criteria were examined and reported on. First simply proving with statistics that the blessed wine is significantly different was required and is proven given the above explanation and the information contained in Figure 9, the results of the Mann Whitney U Test. Second, it was important to show whether or not the blessed wine was not only different but was affected through prayer to become changed in a way that was more coherent.

Given the assumptions of this dissertation from Chapters 1 and 2 and using the methods outlined in chapter 3 and 4, the area of each 95% confidence ellipse was measured and calculated. The reasoning is that the smaller the ellipse, the tighter the data points and therefore the more coherent the overall energetic signature. Figure 10 on the following page shows the results of measurement of the

ellipses. The ellipses were measured in units relative to themselves with no reference to inches, millimeters, pixels, or other units hence the “relative units”, (*RU*) nomenclature.

Wine Experiment			
Table of Results			
Area of Ellipse			
Assay #	Unblessed Area, (<i>RU</i>)	Blessed Area, (<i>RU</i>)	Blessed Area Smaller?
1	1,730.96	247.48	Yes
2	1,027.55	99.09	Yes
3	427.64	35.30	Yes
4	136.76	8.18	Yes
5	1,375.37	135.49	Yes
6	1,733.57	112.92	Yes
7	628.07	5.52	Yes
8	978.69	15,114.30	No
9	2,557.74	515.19	Yes
10	18.78	28.76	No
11	18.79	21.64	No

Figure 10: Table: Area of Ellipse

Of the 11 assays, 8 resulted in ellipses that were smaller than the unblessed wine. It is therefore asserted that blessing wine has the potential to not just change it but change it to a more coherent state.

Chapter 5: Discussion

“To be a true explorer in science—to follow the unprejudiced lead of pure scientific inquiry—is to be unafraid to propose the unthinkable, and to prove friends, colleagues, and scientific paradigms wrong.”

-Lynn McTaggart

In her now famous work, *Molecules of Emotion*, Candace Pert reminds us of the importance of staying on the cutting edge of science when she says, “do not accept the conventional wisdom. Do not accept the idea that something cannot be accomplished because the scientific literature says it can’t. Trust your instincts. Allow yourself a wide latitude in your speculations”. (Pert, 40). Convention might say that attempting to measure intent is as crazy as jumping off a bridge. Tradition would tell us that Prayer is the realm of the priest and not that of the scientist. If we simply stayed with the party line and did not dig any further, we would stop studying emotion, convinced that it is a random assembly of chemicals given by some physical stimuli. Action reaction. Cause and effect. That problem is, or perhaps the gift is; we are human. And humans are inquisitive.

As human beings, it goes without saying that we are unique creatures on this planet. One of the primary differences is the way we process information. All animals have some sort of frontal lobe, however, in human beings this area of the brain is particularly enhanced. It is responsible for many things including some of our motor skills, comparing objects, and the forming of individual personality. It deals with memories and empathy. According to Medicalnewstoday.com, “The frontal lobe plays a key role in future planning, including self-management and decision-making”, (Villines, n.p.). Finally, and perhaps most importantly, the frontal lobe is vital to our consciousness and to a function that seems to be unique to the human experience; speech, or more descriptively, the ability to put thoughts into words.

There is an old quote by Napoleon Hill which reads, “whatever the mind of man can conceive and believe he can achieve”. This statement is truer today than at any other time in history. As we ramp into the last years of the second decade of the new millennium, the world we live in bears almost no resemblance to the world of our parents or our grandparents. Consider the changes we have seen in the past 100 years. The internet did not exist before 1990. Cable TV was not widely available in the United States before the early 1980’s. Color TV started in the Early 1970’s. In the mid-sixties, a science fiction writer named Gene Rodenberry created a device called a “communicator” that was a wireless, hand held computer used primarily for Captain Kirk, Mr. Spock and “Bones” to speak with one another or to have Scotty “beam them up”; today we call that device a cell phone. 100 years ago, in 1918, Hollywood films were still silent, radio was just coming of age, and only 35% of American households even had a telephone. Today, Apple Corporation makes a watch that doubles as a phone, TV, music player, global positioning system, and health monitor.

Information is paramount, and communication is imperative at all levels.

Communication is Key

The learning pyramid created by the National Training Laboratories in Betel, Maine tells us that if somebody speaks to us in a lecture format, we may retain 5% of what is said and if we read about that same subject we may retain 10%; however if we engage in a group discussion we would be likely to retain more like 50% and if actually we practice something by physically doing it we can retain up to 75% of the information that is presented. It’s pretty easy to see that reading or listening to a lecture is a more passive activity whereas participating in a group discussion or practicing something is a much more active method. Current theory holds that the difference in retention rates has to do with the extent of reflection and the cognitive processing that our brains must go through when we actively think or speak about something. An emerging medical field known as neuroscience tells us that the reason

this happens is because as circuits fire in our brain, the neurons wire together to form larger and larger pathways for the more used patterns of thought. Literally, the more active the exchange, the more wiring and rewiring of neurons occurs in the brain. A path becomes a road and eventually a superhighway. The brain actually adjusts and moves cells around to be able to think the same thoughts. As Donald Hebb, the now famous Canadian psychologist said back in 1949, “neurons that fire together wire together”.

All exchange occurring between any entities is based on communicating information between those entities. It does not matter if it is two people, a flock of birds, a bee gathering nectar from a flower, or the cells of our bodies. One entity in some way communicates information to another entity who reacts and responds to such information and communicates back. It is simply how life is done and moreover, the very survival of all life on the planet is dependent upon this exchange.

The exchange does not happen just between large entities such as a bee, a bird or a person; it happens even at a cellular level. All cells have structures known as Integral Membrane Proteins (IMPs). These IMPS are the “telephone lines” if you will, of the cell allowing communication from the exterior to the interior of the cell, through the cell wall. They come in two classes; receptor proteins and effector proteins. Receptor proteins can be likened to the cells’ sense organs, responding to exterior stimuli like when we hear, smell or taste something. The effector proteins then take that information that has now entered the cell and produce whatever life sustaining response that is necessary for the given stimuli. Cell receptors have been known for a long time and it was always thought that they responded only to chemical or electrical stimuli. However, according to Bruce Lipton, in 1989 T.Y. Tsong reported in the journal *Trends in Biochemical Sciences* that these receptor IMPs “can also read vibrational energy fields such as light, sound, and radio frequencies. The antennas on these ‘energy’ receptors vibrate like tuning forks”, (Biology, 53). It has also been reported by Dr Lipton that “energetic signaling mechanisms such as

electromagnetic frequencies are at least 100 times more efficient in relaying environmental information than physical signals such as hormones, neurotransmitters, growth factors, etc.”, (Biology 81).

Thoughts, Words and Deeds

“In the beginning was the Word. And the word was with God. And the word was God” (John 1:1, KJV). According to Bible Gateway, and online biblical search tool, the phrase “God said” occurs 620 times in the New King James version of the bible, 578 times in the Modern English version and 568 times in the American Standard version. This is not limited to the Judeo-Christian faiths. The Quran states, “ Moreover He [Allah] comprehended in His design the sky, and it had been (as) smoke: He said to it and to the earth: ‘Come ye together, willingly or unwillingly.’ They said: ‘We do come (together), in willing obedience.’ “, (Quran 41:11). The Bhagavad Gita is largely a conversation between Krishna, the manifestation of the Supreme God Vishnu who is the God of all creation and Arjuna, a soldier and nobleman. It appears that the lesson here is that when God speaks, things happen. Thoughts become words and in turn, words become deeds.

Again, this is not a new concept. The quoted biblical verses go back to 1400 BCE, and the Quran was written between 609 CE and 632 CE. The Bhagavad Gita quoted elsewhere in this paper was written around 400 BCE and the Enuma Elish dates back to 1500 BCE. What is new is our ability to scientifically measure such phenomena. As Lynn McTaggart has pointed out, “Discoveries are being made that prove what religion has always espoused: that human beings are far more extraordinary than an assemblage of flesh and bones”, (McTaggart, 15).

Indeed, if one adheres to the Judeo-Christian belief system, one knows that human beings are created in the image of God. As it is written, “So God created mankind in his own image, in the image of God he created them; male and female he created them.”, (Genesis 1:27, NIV). The question to ask is, what does this mean, to be created in the image of God? There are many theories, however, the

overarching idea is that each of us has a bit of the Devine within us; each of us has the power to create; to employ the Universe to manifest whatever it is we want to have in our reality. Wayne Dyer gives a fantastic illustration of this concept in one of his many books, *The Shift*. "I suggest thinking of our relationship to God or the great Tao by imagining the ocean as symbolic of God, and ourselves symbolized by a small glass of water from the ocean", (Dyer, 59). If this is even remotely true, then we as humans have immense power at our disposal to change and manipulate our environment; in fact, this power is quite literally as infinite as the universe itself.

Manifesting Results

In the first chapter of Genesis, we are provided a formula for all manifestation and communication in the entire universe. In this formula, God speaks, the item is created, it is inspected and found to be good, and when blessed by God it prospers.

"God also said: Let the waters bring forth the creeping creature having life, and the fowl that may fly over the earth under the firmament of heaven. And God created the great whales, and every living and moving creature, which the waters brought forth, according to their kinds, and every winged fowl according to its kind. And God saw that it was good. And he blessed them, saying: Increase and multiply, and fill the waters of the sea: and let the birds be multiplied upon the earth."(Genesis 1:20-22, DRA).

There has been a tremendous body of books written, data collected, and experiments completed to show that this manifestation technique is highly effective in any area of life. In this dissertation two authors from two different eras have been mentioned that both wrote extensively on the subject; Wayne Dyer and Napoleon Hill. There are literally hundreds if not thousands of others.

At this juncture it is important to discuss the Placebo effect, and the possibility of its presence in our experiment. In medicine we see time and time again that the way a patient believes about an illness, which is their intent and their attitude toward it, which is the emotional component to the illness all plays a major part in whether they heal from that injury or disease or succumb to it. This is an example

of manifestation in action. Sometimes it works for the greater health and wellness of the patient; sometimes it works against the patient and disease increases. It all depends on belief and attitude; or as described in this dissertation, intent and emotion. Newsmax Health ran an article in 2015 titled, "*Science Proves the Healing Power of Prayer*" where the author quotes duke University's Harold G. Koenig, MD; "Out of 125 studies that looked at the link between health and regular worship, 85 showed regular churchgoers live longer", (Science, N.P.). Further, the Journal *ISRN Psychiatry* published an article in 2012 that basically said the same thing: "The majority of studies report significant relationships between R/S [Religious/spiritual beliefs] and better health", (Religion, n.p.).

Generally 30 to 50% of patients respond to some sort of placebo. Prayer or blessing for the purpose of manifestation is a phenomenon that in terms of this dissertation, goes far beyond the placebo effect. As we noted in the previous chapter, *all* the wine was changed in some way and 73% of the wine become more coherent. What this means for us is simply this: Prayer works. Blessing works. A change is affected. The change may not always be what we say we want, but a change is absolutely present, as shown in the 11 wine tests performed for this paper. This brings up a point worthy of discussion. The change through prayer is not always what we want; or at least it appears that way.

In order to explore this concept further, I must first introduce one man in particular. Neville Goddard, a well-known author and speaker, was able to illustrate ancient biblical teachings like those in this subchapter into psychological truth, not only applicable in today's modern world, but verifiable through modern science. There are two bible verses that speak as to how we, as human beings, manifest objects, people, and situations into our lives. "No one is able to come to Me unless the Father Who sent Me attracts *and* draws him *and* gives him the desire to come to Me...", (John 6:44, AMPC) and "I and the Father are One", (John 10:30, AMPC). The first verse mentioned smacks of judgement and lack. If taken literally it means God the father picks some people to go to the Son, meaning Salvation, and others do not get to go. The second verse is one of the arguments for the supposed mystery of the

trinity; known as the triune deity – God the Father, God the Son and God the Holy Spirit. Unfortunately, if we take these verses literally they contradict the verse “I am the LORD, and there is no other; there is no God but me.”, (Isiah 45:5, CSB), not to mention the fact that a judgmental God contradicts a God of Love. Mr. Goddard was able to explain manifestation by translating these two verses into modern psychological language. “My consciousness is the Father who draws the manifestation of life to me. The nature of the manifestation is determined by the state of consciousness in which I dwell. I am always drawing into my world that which I am conscious of being.”, (Goddard, 94). He points out that what shows up in our life is related directly to our state of consciousness. So it is not just about what we say. It is not just about having a positive attitude. It is about living in a particular state of being; a consciousness.

What is Consciousness

The questions we must ask next is what exactly constitutes a consciousness and how does it act in a way that helps us or hurts us; that is to say how is it either chaotic or coherent? In metaphysics the term consciousness generally relates to the relationship between the mind, being the interior component and the world being the exterior component. However, for purposes of this dissertation we must delve a bit deeper in that consciousness has been shown to have a determining role in quantum physics; after all, consciousness would be the observer in the observer effect explained by Heisenberg and observation is largely viewed as the reason for wave function collapse, meaning the point at which a measure of energy such as a photon coalesces into a particle. For our purposes, we will consider consciousness to have the definition assigned by G. Vithoukias and D.F. Muresanu, in their *Journal of Medicine and Life* article, “Conscience and Consciousness: a definition”; “ ‘Consciousness’ is the function of the human mind that receives and processes information, crystallizes it and then stores it or rejects it

with the help of the following: 1. The five senses, 2. The reasoning ability of the mind, 3. Imagination and emotion, 4. Memory”, (Vithoukias, n.p.).

So let’s take a moment and go back to the biblical formula: God speaks, the item is created, it is inspected and found to be good, and when blessed by God it prospers. When we speak, a variety of areas in our brain are turned on or off and many reactions both energetic and chemical occur; but before we even speak, there is something that happens first; we have a thought. The thought, let’s call it our intent, is not as simple as “ I want some ice cream”. First of all, simply note what happens when you read that sentence. Before you read it, you likely were not even thinking about ice cream. Now, you are not only thinking about it, you have a picture of it in your mind. You are probably even thinking about your favorite flavor, prepared just the way you like it, in a bowl with chocolate syrup and nuts or stacked three scoops high on a waffle cone. By now your mouth is watering with just the simple thought; just a few words on a page. Why? Because you have memories associated with ice cream; presumably fun, happy, sweet tasting memories. You have emotions attached to ice cream; family, friends, being a kid. Your memory files as well as your imagination has just run wild and as a result caused all kinds of chemicals to be released not just in your brain but all over your body.

But what if, perish the thought, you have had bad experiences with ice cream. What if as a child they found that you are allergic to dairy products and as soon as that silky vanilla smoothness hit your mouth you started vomiting uncontrollably? What if you experienced some trauma as a kid, like having a car accident right after your dad bought you and ice cream cone? What if you tried it and just did not like the taste? Ok, the last example is probably impossible, however, the point is that this would of course kick off an entirely different cascade of emotions, memories and ultimately energy and chemicals to be working behind the scenes.

Have you ever pulled into the parking lot at work and wondered, “how did I even get here”? Do you ever think about what it takes to drive your car, or is it just *natural*? Dr. Joe Dispenza refers to this as the body becoming the mind and points out that “ninety-five percent of who you are by the time you’re 35 years old is a set of memorized behaviors, skills, emotional reactions, beliefs, perceptions, and attitudes that functions like a subconscious automatic computer program”, (Placebo, 71). All of this runs from the part of our brain that is subconscious and so we are usually barely aware of it. If this is true, then it doesn’t matter how much you *WANT* to change your circumstances. You may even know that you *NEED* to change your circumstances. Desire is all well and good, however you will need to overcome the 95% of your brain that is already programed for a different outcome.

Sadly most of us have been programmed by a society that teaches a competition model; a model in which we must fight or flee, where we must be limited and submissive to the authority in charge of us and mostly to the concept that we are somehow, less than perfect, less than complete without some sort of outside intervention, be it a parent, a partner, a government, or a savior.

Medical, psychological, and scientific studies have proven that the emotions of fear, or anger, or hatred, or bigotry are all harmful to the body, especially if these emotions are experienced chronically. Medicine has agreed that the hormones of stress can cause lasting damage to our bodies. More science has shown us that we are largely a blob of automatic habits; most of our lives lived on autopilot. Quantum Physics has shown us that these emotions listed above are all rooted in chaotic energy. If all this is true, then how is it that every once in a while, we can periodically effect a change in the universe around us? How is it that 5 people were able put together an intent and an emotion to change wine and three of them changed it to a more coherent state?

The Consciousness of Coherence

There is a long-held belief in science in general and in physics in particular called entropy. There are many definitions to this term and it relates closely to the second law of thermodynamics which states that “the total entropy of an isolated system can never decrease over time”, (Second Law, n.p.). It goes along with first law of thermodynamics also known as the conservation of energy law which states that energy is neither created nor destroyed, but only changes form. Basically the belief is that everything in the universe would like to work itself to the most disordered state possible. While this concept worked empirically, without any experimentation whatsoever in Newtonian physics, in the world of the quantum it starts to break down quickly.

We now know from quantum mechanics that the universe is actually a highly ordered phenomenon, and though an observer might examine a particular piece of the universe and it may seem disordered and chaotic in and of itself, in the overall scheme of the universe taken as a whole it is absolutely ordered and reasonable. To paint a picture of how this works to somebody not familiar with calculus or differential equations, consider the circle. If you look at the whole circle you can see that there are no is no straight line anywhere in it, a circle is composed of an arc; never ending and never beginning at any particular place, all parts of it equally distant from the center. However, if you zoom in close enough to any part of the circle it may, for all intents and purposes appear as a straight line; it is not a straight line of course; but will appear that was and if one is looking at a small enough piece it can be approximated as such. Therein lies the difference between Newtonian physics and quantum physics. Here on earth in the realm of three dimensions and time we are looking at the little piece that looks like a straight line and can be generally worked out mathematically as a straight line, however; in the world of quantum physics we are looking at the circle as a whole.

In the late 70s a neuroscientist and psychologist at the University of Wisconsin's Laboratory for Affective Neuroscience named Dr. Richard Dawson decided to examine the brain scans of some of the Dalai Lama's most seasoned practitioners in meditation. What he found was that these monks had practiced meditation for so long that they had actually altered the way that their brain worked. Further experiments revealed that their meditation activity produced a coherent and synchronization of the two hemispheres of the brain as well as integrating the limbic system which is the lower emotional center with the cortical systems which are the seats of higher reasoning. Since that time there have been many studies showing that when a person engages in meditation, the EEG activity between these four regions of the brain tends to synchronize and become more coherent. If we consider prayer a light or waking form of meditation then it's not a hard stretch to envision prayer, especially when practiced regularly, as a means making the world around oneself and for that matter one's interior world and body more coherent.

Rollin McCraty, at the HeartMath Institute in Boulder Creek, California has done similar experiments relating to the heart and a measurement known as heart rate variability. "Heart rate variability is a measure of the normally occurring beat to beat changes in heart rate", (McCraty, 13). We can have too much instability like in arrhythmias or other nervous system issues which is not healthy for any of our psycho physiological functions however too little variation is also not good for us and tends to indicate depletion of the overall system sometimes age-related but also due to things like chronic stress or inadequate functioning of other control systems within the body like the autonomic nervous system. What this means for our purposes is our heart does not necessarily need to have a higher rate or lower rate of variability within the heart rate however it does need to have a coherent variability, therefore, coherence is equal to the maximum opportunity for health for us as humans.

As shown by Davidson's work with the monks and other experiments, it is possible to consciously augment the brain to reach a more coherent state. McCraty shows that it is also possible to

do so within the heart. McCraty says it well in science of the Heart, “for a system to produce a meaningful function, it must have the property of global coherence. In humans, this includes our physical, mental, emotional, and social systems’, (McCraty, 25).

Joe Dispenza has said that by “persisting with meditation and creating coherence within, you will not only remove a lot of the negative physical conditions that plague your body, but you can also progress toward that ideal self you’ve envisioned”, (Breaking, 214). Part of the reason for this is that in meditation it is easier to reach a heightened state like compassion or joy or love or gratitude; and it turns out that these particular states have already been shown to be profoundly coherent for the body.

Bringing it all Together.

So it appears that is simply not enough to just have an intention. You can’t just “*Think and Grow Rich*”, to quote the title of the most famous book written by Napoleon Hill. It’s also not enough to just engage in “*The Power of Positive Thinking*”, as taught by Dr. Norman Vincent Peale. It will not work because even though you have a great idea, you got plenty of past history written into the neurons of your brain, the beating of your heart, and at the core of every cell in your body that tells you that your fanciful thought is just not going to happen, based on your past.

It’s also not enough to merely have a purely emotional experience. Bruce Lipton points out in *The Honeymoon Effect* that many relationships fail, not because of the 5% of conscious thought that is what all of us aspire to be but “the sabotaging and limiting *subconscious* programs they acquired from others, which all of us unconsciously engage in about 95 percent of the time”, (Honeymoon, n.p.). The problem with a single emotional experience is that unless it is huge; meaning either deeply mystical or highly traumatic, it is not going to rewire the brain to overcome the habits and addictions to the present

state of our lives. Remember the superhighway; if it were a matter of a single pathway in the brain it might be easy to overwrite the code, but when we have developed an immense rope of neurons all firing together it is a much different story. In order to effect a lasting change it is going to have to be bigger than the programs; It is going to have to be something that brings us outside of ourselves.

And therein lies the key. The key to why meditation works. The key to why mindfulness works. And the key to why prayer works. Each is an exercise in getting beyond ourselves. Each is a method to explore a larger, more coherent Universe. Each is a way to experience what the Greeks called, “Extasis”.

The term ecstasy comes from the Ancient Greek *ekstasis*, (ἔκστασις), which according to Wikipedia means, "to be or stand outside oneself". In Steven Kotler and Jamie Wheal's national bestseller, “Stealing Fire”, these authors explain that non-ordinary states of consciousness associated with peak performance, these moments of “flow” or moments of ecstasy, have a tendency to mend broken areas of our life and over time can reprogram our subconscious and our autonomic nervous system, particularly when they are repeated and become habit in and of themselves. And, as Barbara Carrellas has pointed out, “The difference between ecstatic states and states of pleasure, happiness, or comfort is that ecstatic experiences embrace the entire being: physical, social, emotional, and spiritual”, (Carrellas, n.p.).

While we may look at ourselves and see a disjointed, chaotic process struggling to survive in the three dimensional world; it would seem that the more often we step away from ourselves and observe us as a piece of the overall universe, that is to say the more we reach for extasis in the macro level or perhaps the quantum level; the more coherent we become in the micro level.

Chapter 6: Conclusion

“In terms of human evolution, we have barely begun to consider that everything in our environment is just a single manifestation of an infinite variety of possibilities”

-Dr. Joe Dispenza

This dissertation sought to explore the relationship of chaos to coherence, to discuss the importance of coherence to the body, mind, and soul, to explain the relevance of receiving and giving coherent information both internally and externally and show that coherence is the language of the universe. When considering such immense and seemingly vacuous concepts like chaos or coherence it was important to take into account historical, scientific, and spiritual opinions as to the meanings of these words and what those meanings can ultimately portray to us in everyday life. It was also important to back such historical, scientific and spiritual opinion with peer-reviewed publication, multiple blind and double-blind studies, and self-evident as well as empirical evidence. By approaching this subject in both a highly scientific and deeply spiritual manner, by using esoteric sources from multiple religious belief systems and employing rigorous scientific methods, this author believes he has prepared a valid and complete argument for the above mentioned dissertation statement.

Summarizing the Results

11 tests were performed in which red wine was blessed using the combination of a clear intention and strong emotion described in this dissertation. Five subjects were involved in these 11 tests. Of the five, three are well-trained meditators coming from several different meditative disciplines. The other two subjects expressed definite spiritual belief systems, however, were not specifically trained in any aspect of meditation.

It is important to note that although the wine was energetically changed in every instance by the intent/emotion recipe described in this dissertation, it is also relevant to understand that the wine

which became more statistically coherent was in every case blessed by those who had experience in meditation whereas the wine that moved to a less coherent state, albeit a higher energy state, was produced in every case by the two subjects who did not have much meditative experience. Though not conclusive, this lends credence to the possibility that meditation as a practice, like prayer as a practice will not only allow the meditator to affect the energy around them, non-locally, but also allow one to reach more coherent states within one's self as well as affect more coherent states in the world around them.

Limitations and Recommendations

Although this dissertation and the experiment involved with this dissertation has been a daunting task it has also had several limitations and has provided many more questions than it answered. Notwithstanding the fact that in all 11 tests within the experiment the wine was changed, the experiment is tremendously small. The experiment used only crude static bags rather than a high level, certified, laboratory ready faraday cage; mostly due to the investment required for such a shielding device. This may or may not have introduced emf or other energy into the field that was being examined. The laboratory itself was not a clean room, rather an office. It was subject to changes in barometric pressure and temperature throughout the day when testing was being conducted. Although none of the tests broke the 5% rule for the equipment, a more controlled atmosphere might yield tighter results.

In order to compile much more conclusive evidence as to the power of prayer in terms of affecting the energy and the coherence of that energy, a much larger test and tests with many less variables, or more controlled variables would be highly recommended.

Answers and Questions

Perhaps the most wonderful thing about being human is our ability to pose and answer questions. This experiment answered some questions but yielded far more questions than it answered. For example, there seemed to be a corollary between the meditators and their results versus the non-meditators and their results. This would be a fantastic direction to pursue and test. One of the subjects produced not just a little more energy but substantially more energy than the other four; even if it was very incoherent. This again would be an interesting avenue to track. Each wine variety that was tested yielded different signatures even before it was blessed. We have always been told that everything has its own vibration; its own frequency. It could be that everything has its own group of frequencies or perhaps even its own song. Again, this would be an incredible direction to explore.

A Call for More Science

What next? Next, we must reach even further. Conduct more experiments. Ask more questions and collect more data. From a purely physical standpoint our brains are not much more than a muscle and muscles only grow when they are stretched. It seems obvious from the data presented that the language of the universe is the language of coherence. The next thing we need to do is to learn how to speak it well and speak it effectively.

Finally, just because this is the final page of this dissertation does not in any way mean it is the end. Every time we think we enrich not just ourselves but the entire universe. Every question we pose, every experiment we conduct, every thought we even spend a moment ruminating on leads us closer and closer to those things we seek; a greater and deeper understanding of the universe, the source of its energy, and our place in the cosmos.

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Appendix A- 95% Confidence Curves

How to read these graphs:

The y-axis on each of these graphs is a measure of the energy of the Glow Image (GI) recorded in micro Joules. The x-axis is the Deviation (S) Given by the equation: $Deviation (S) = Standard\ Deviation(S(x-20) - S(x))$ where the deviation at any point on the graph is given based on the moving average of $s(x-20) - s(x)$.

In terms of the 95% confidence ellipses:

- Blue Ellipses: Blessed Wine
- Red Ellipses: Unblessed Wine

For each test, "b" in the legend stands for bless wine whereas "NB" stands for unblessed wine.

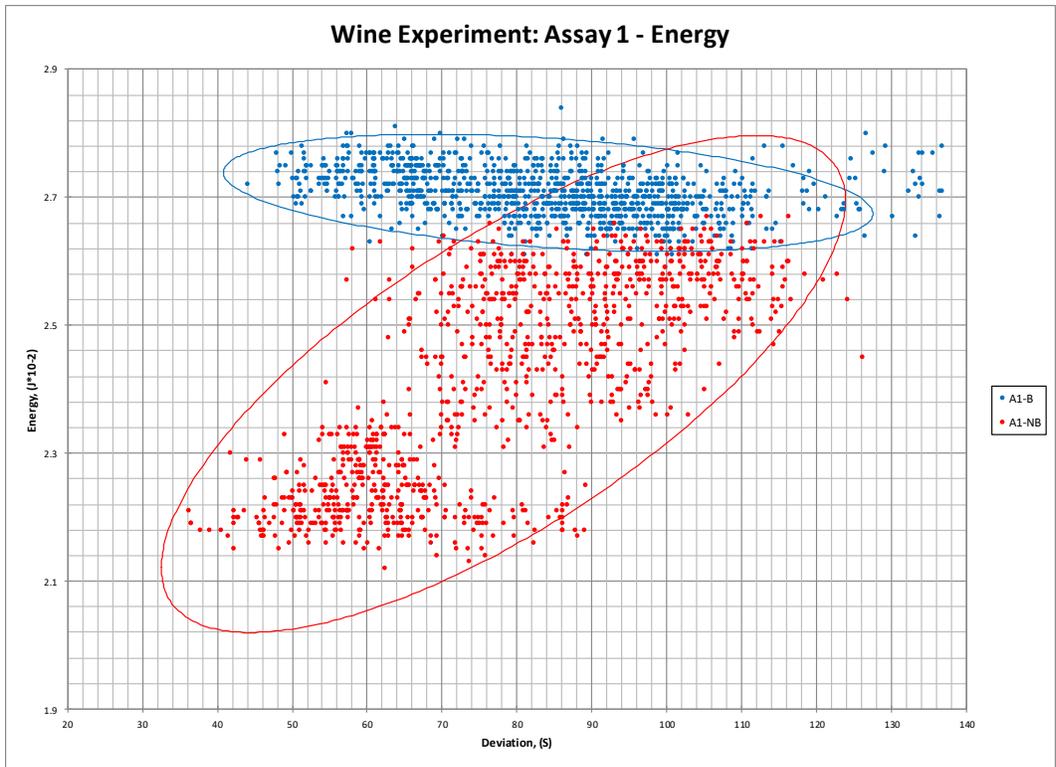


Chart 1

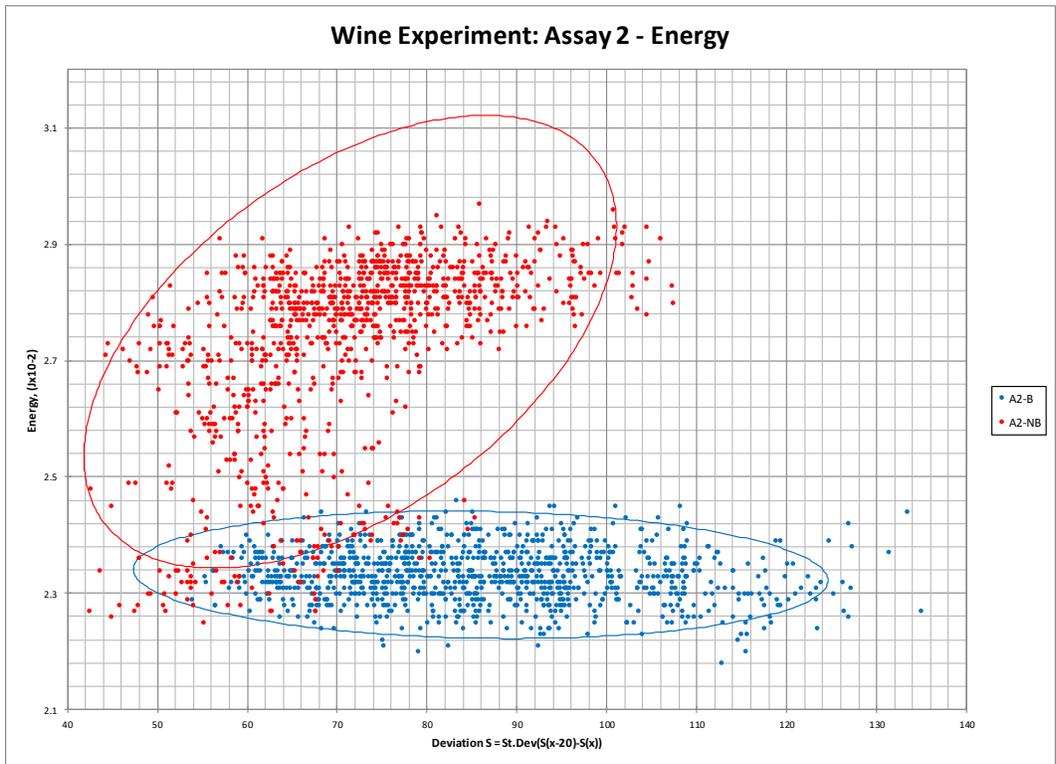


Chart 2

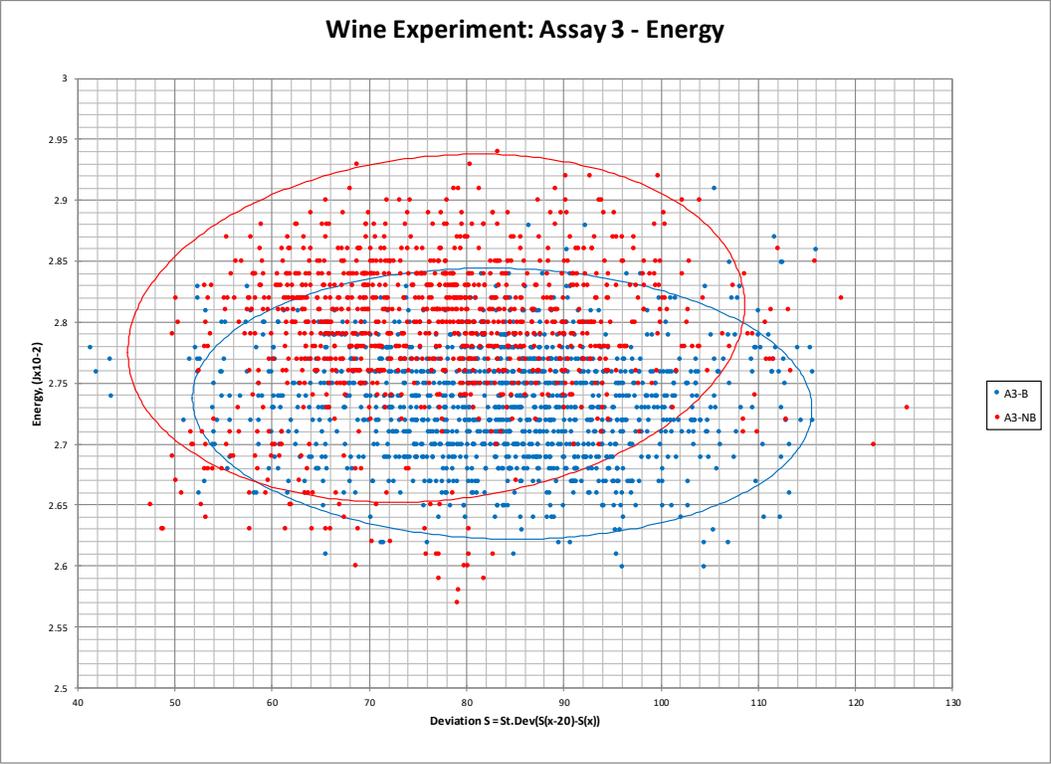


Chart 3

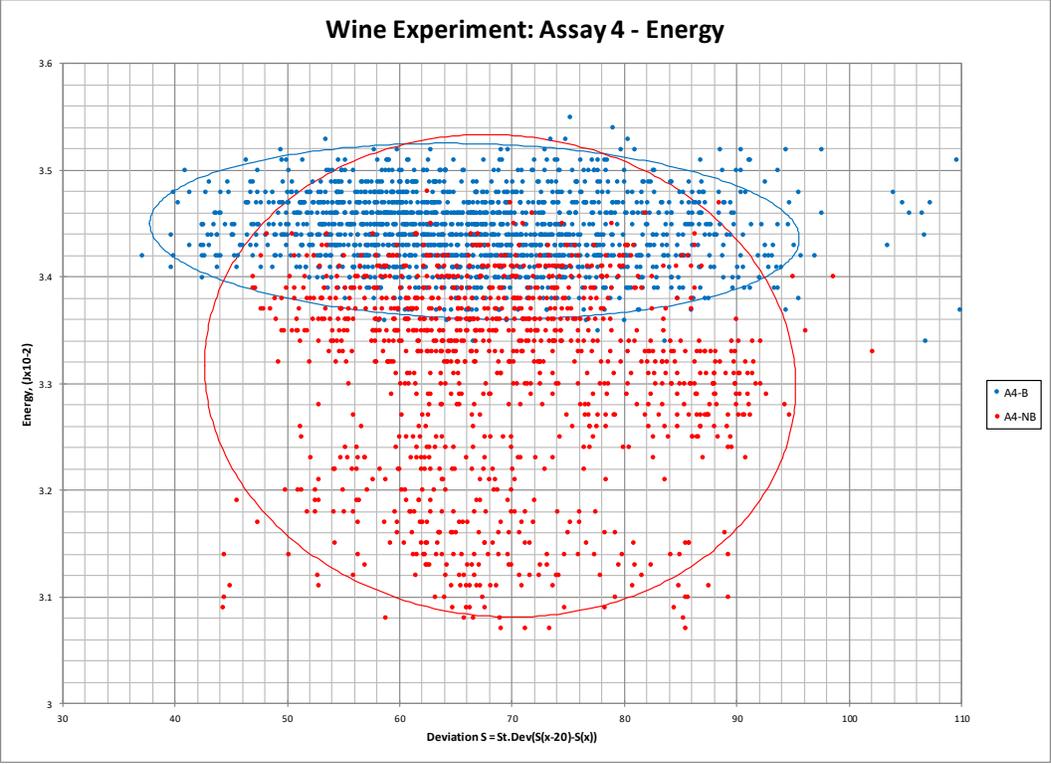


Chart 4

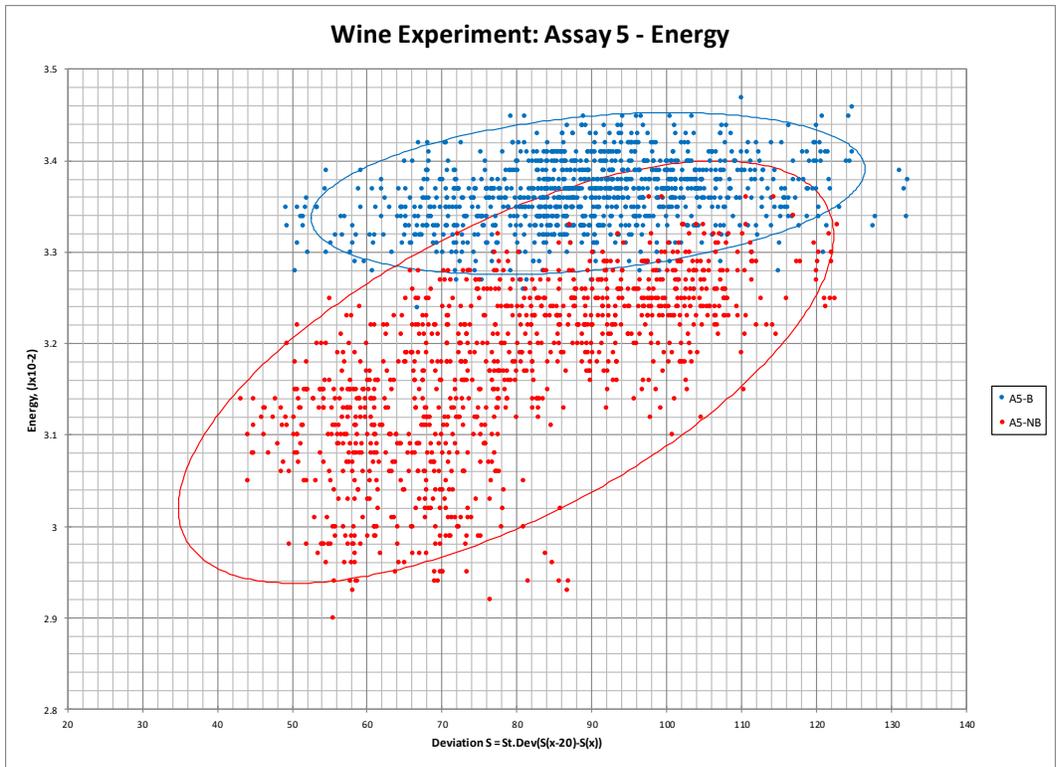


Chart 5

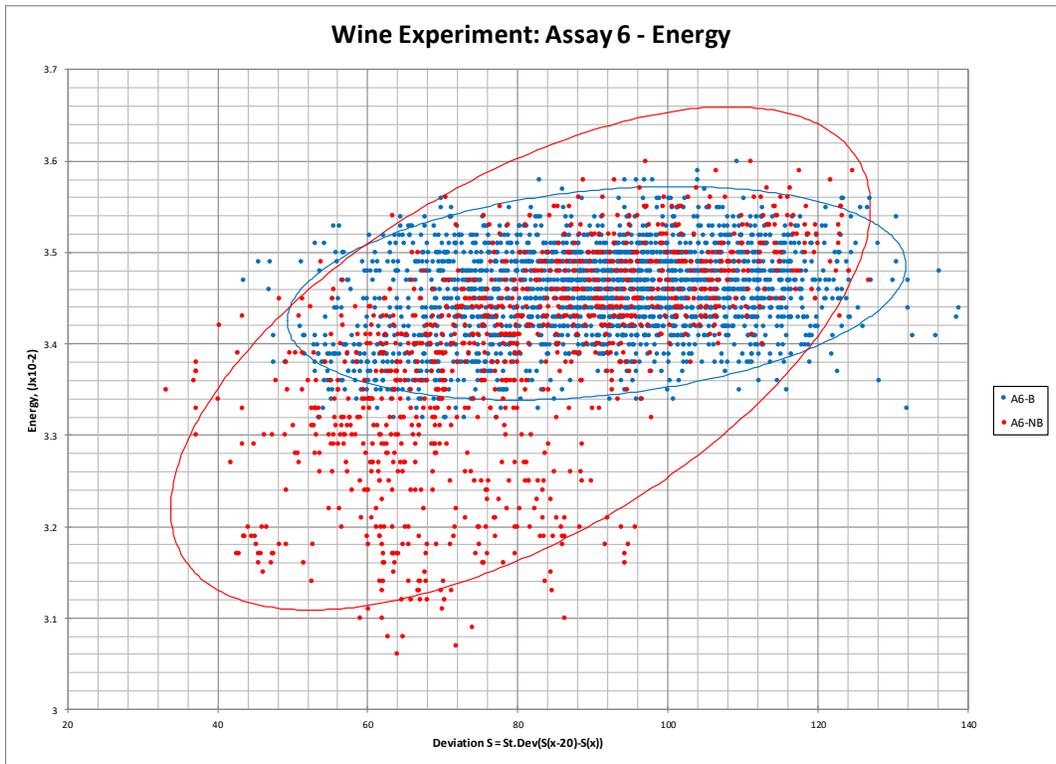


Chart 6

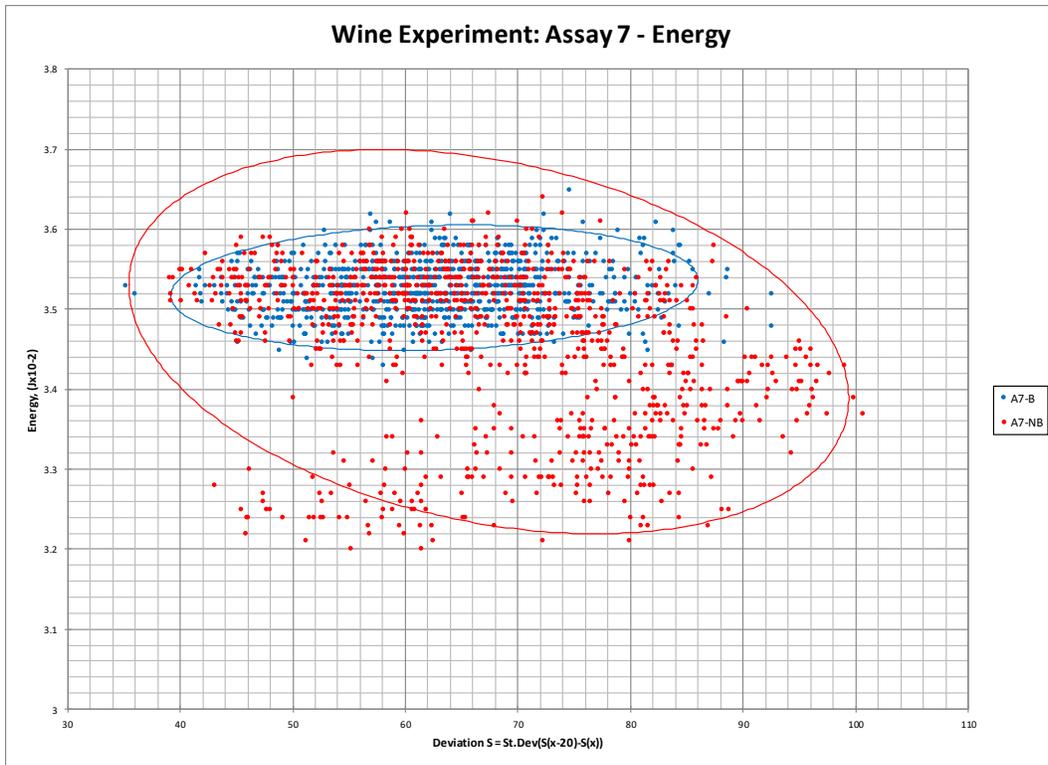


Chart 7

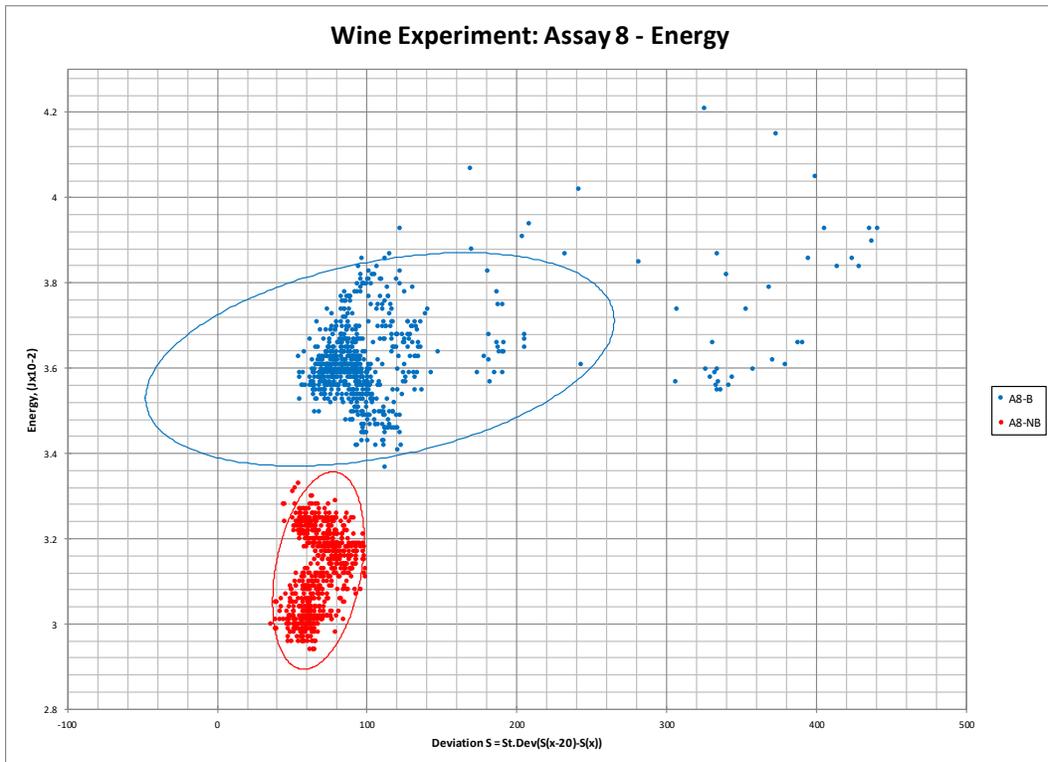


Chart 8

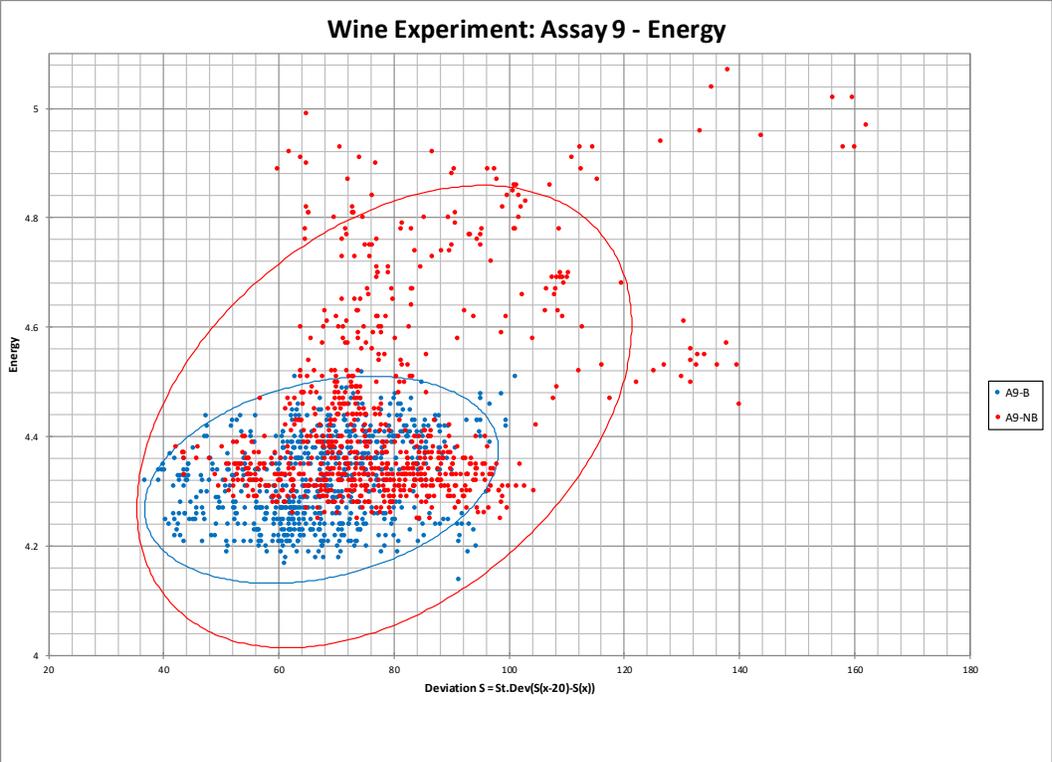


Chart 9

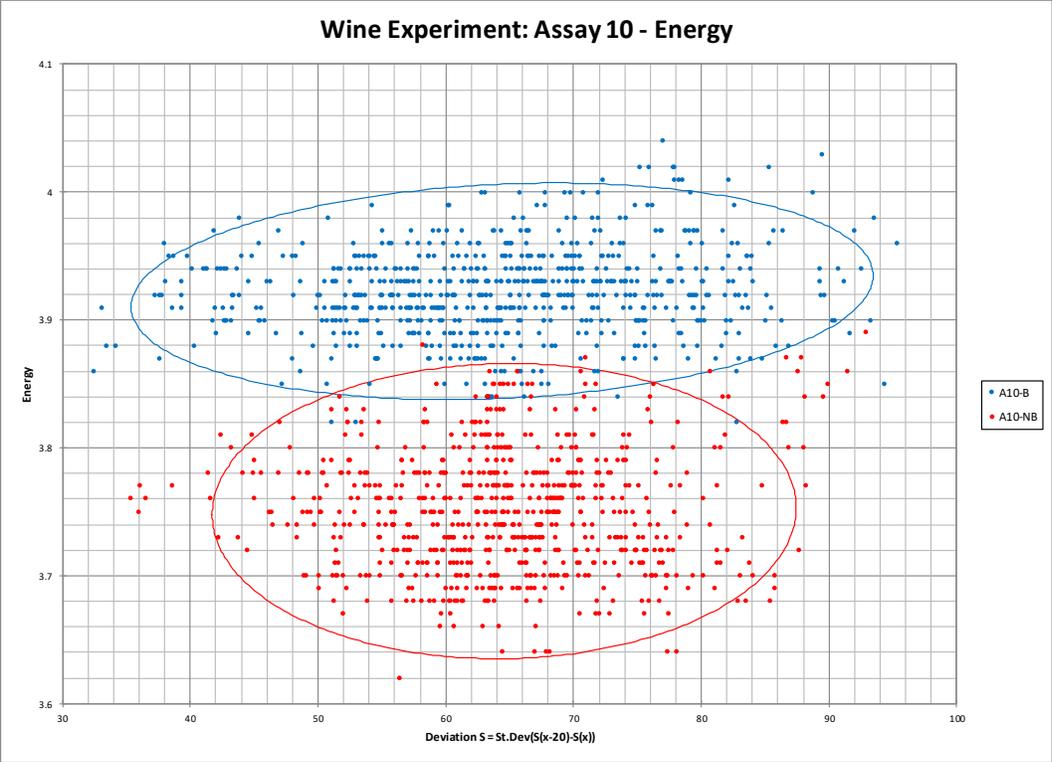


Chart 10

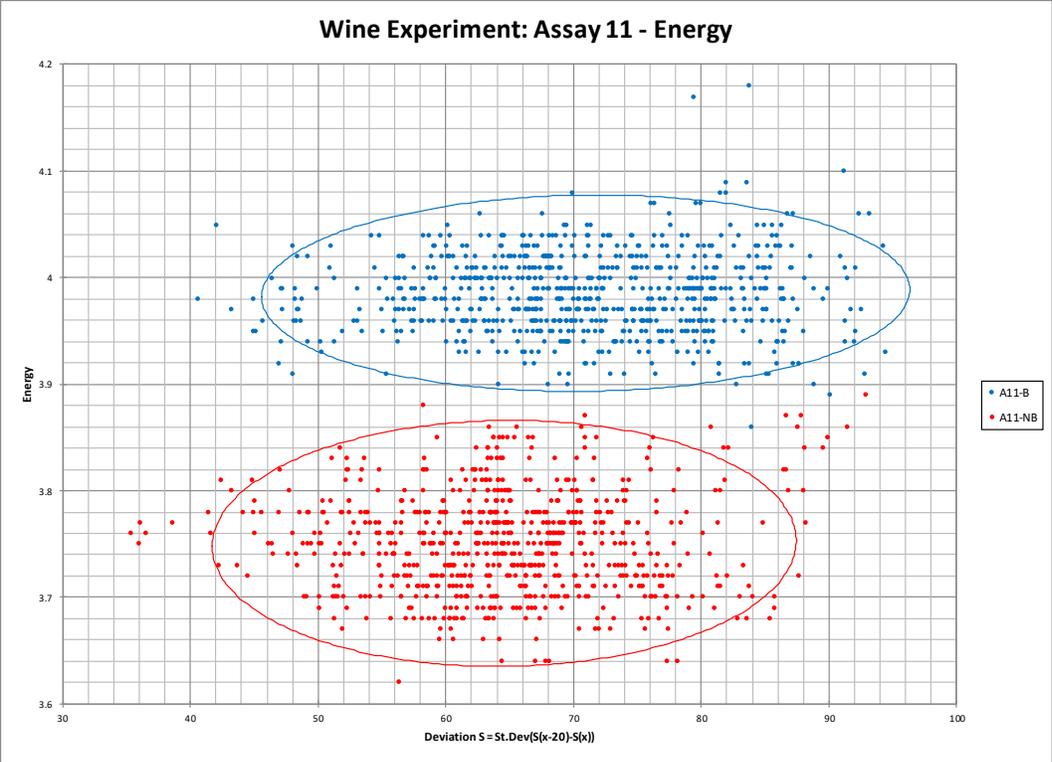


Chart 11

Appendix B: Statistics Results

How to read these tables:

Each Assay has a subject, the date of test, and a wine varietal noted near the top of each table. The next data set is the descriptive statistics. The Variable column describes the test within each assay, being blessed wine or unblessed wine. The Observations column describes how many data points were taken for a given test. Minimum is the minimum value of the data set. Maximum is the maximum value of the data set. Mean, is the non-parabolic mean for the data set. Standard deviation is the total standard deviation for the entire data set, (as opposed to the Deviation S which speaks to the deviation from standard for each particular data point, ref. Appendix A).

Below the descriptive statistics as the results of the Mann-Whitney Non-Parabolic U test.

Assay 1:

Subject: Allan Susoeff

Date: 3-5-18

Wine: 14 Hands Cabernet Sauvignon

Summary statistics:

Variable	Observations	Minimum	Maximum	Mean	Std. deviation
Unblessed Wine	1043	2.1200	2.6700	2.4083	0.1583
Blessed Wine	1063	36.2400	126.1600	77.8745	18.5485

Mann-Whitney test / Two-tailed test:

U	0.0000
Expected value	554,354.5000
Variance (U)	194,655,742.8660
p-value (Two-tailed)	< 0.0001
alpha	0.01

An approximation has been used to compute the p-value.

Assay 2:

Subject: Allan Susoeff

Date: 3-7-18

Wine: 14 Hands Cabernet Sauvignon

Summary statistics:

Variable	Observations	Minimum	Maximum	Mean	Std. deviation
Unblessed Wine	1053	2.2500	2.9700	2.7324	0.1587
Blessed Wine	1040	2.1800	2.4600	2.3315	0.0446

Mann-Whitney test / Two-tailed test:

U	1,055,165.5000
Expected value	547,560.0000
Variance (U)	190,929,663.1196
p-value (Two-tailed)	< 0.0001
alpha	0.01

An approximation has been used to compute the p-value.

Assay 3:**Subject: Allan Susoeff****Date:3-8-18****Wine: 14 Hands Cabernet Sauvignon**

Summary statistics:

Variable	Observations	Minimum	Maximum	Mean	Std. deviation
Unblessed Wine	1026	2.5700	2.9400	2.7950	0.0582
Blessed Wine	1218	2.6000	2.9100	2.7331	0.0453

Mann-Whitney test / Two-tailed test:

U	1,022,255.5000
Expected value	624,834.0000
Variance (U)	233,212,745.5791
p-value (Two-tailed)	< 0.0001
alpha	0.01

An approximation has been used to compute the p-value.

Assay 4:**Subject: Liz Williams****Date: 3-10-18****Wine: Campo Viejo Tempranillo**

Summary statistics:

Variable	Observations	Minimum	Maximum	Mean	Std. deviation
Unblessed Wine	1062	3.0700	3.4800	3.3074	0.0922
Blessed Wine	1592	3.3400	3.5500	3.4433	0.0337

Mann-Whitney test / Two-tailed test:

U	72,406.5000
Expected value	845,352.0000
Variance (U)	373,133,411.6924
p-value (Two-tailed)	< 0.0001
alpha	0.01

An approximation has been used to compute the p-value.

Assay 5:**Subject: Liz Williams****Date:3-11-18****Wine: Campo Viejo Tempranillo**

Summary statistics:

Variable	Observations	Minimum	Maximum	Mean	Std. deviation
Unblessed Wine	1025	2.9000	3.3600	3.1689	0.0942
Blessed Wine	1030	3.2400	3.4700	3.3642	0.0361

Mann-Whitney test / Two-tailed test:

U	7,631.0000
Expected value	527,875.0000
Variance (U)	180,677,731.0772
p-value (Two-tailed)	< 0.0001
alpha	0.01

An approximation has been used to compute the p-value.

Assay 6:**Subject: Liz Williams****Date:3-12-18****Wine: Campo Viejo Tempranillo**

Summary statistics:

Variable	Observations	Minimum	Maximum	Mean	Std. deviation
Unblessed Wine	1032	3.0600	3.6000	3.3841	0.1122
Blessed Wine	2324	3.3200	3.6000	3.4555	0.0477

Mann-Whitney test / Two-tailed test:

U	738,116.5000
Expected value	1,199,184.0000
Variance (U)	669,134,194.6445
p-value (Two-tailed)	< 0.0001
alpha	0.01

An approximation has been used to compute the p-value.

Assay 7:**Subject: Alana Tyson****Date: 3-16-18****Wine: Silk & Spice Red Blend**

Summary statistics:

Variable	Observations	Minimum	Maximum	Mean	Std. deviation
Unblessed Wine	971	3.2000	3.6400	3.4597	0.0979
Blessed Wine	887	3.4300	3.6500	3.5269	0.0320

Mann-Whitney test / Two-tailed test:

U	255,214.0000
Expected value	430,638.5000
Variance (U)	132,856,949.1234
p-value (Two-tailed)	< 0.0001
alpha	0.01

An approximation has been used to compute the p-value.

Assay 8:**Subject: Katie Latour****Date: 3-17-18****Wine: 14 Hands Cabernet Sauvignon**

Summary statistics:

Variable	Observations	Minimum	Maximum	Mean	Std. deviation
Unblessed Wine	703	2.9400	3.3300	3.1252	0.0942
Blessed Wine	701	3.3700	4.2100	3.6207	0.1018

Mann-Whitney test / Two-tailed test:

U	0.0000
Expected value	246,401.5000
Variance (U)	57,676,684.0546
p-value (Two-tailed)	< 0.0001
alpha	0.01

An approximation has been used to compute the p-value.

Assay 9:**Subject: Alana Tyson****Date: 4-7-18****Wine: 14 Hands Cabernet Sauvignon**

Summary statistics:

Variable	Observations	Minimum	Maximum	Mean	Std. deviation
Unblessed Wine	798	4.2500	5.0700	4.4363	0.1722
Blessed Wine	714	4.1400	4.5200	4.3207	0.0771

Mann-Whitney test / Two-tailed test:

U	403,739.0000
Expected value	284,886.0000
Variance (U)	71,751,981.7007
p-value (Two-tailed)	< 0.0001
alpha	0.01

An approximation has been used to compute the p-value.

Assay 10:**Subject: JJ Minenna****Date: 9-3-18****Wine: 14 Hands Cabernet Sauvignon**

Summary statistics:

Variable	Observations	Minimum	Maximum	Mean	Std. deviation
Unblessed Wine	703	3.6200	3.8900	3.7506	0.0470
Blessed Wine	702	3.8200	4.0400	3.9225	0.0345

Mann-Whitney test / Two-tailed test:

U	772.5000
Expected value	246,753.0000
Variance (U)	57,725,054.9769
p-value (Two-tailed)	< 0.0001
alpha	0.01

An approximation has been used to compute the p-value.

Assay 11:

Subject: JJ Minenna

Date: 9-3-18

Wine: 14 Hands Cabernet Sauvignon

Summary statistics:

Variable	Observations	Minimum	Maximum	Mean	Std. deviation
Unblessed Wine	703	3.6200	3.8900	3.7506	0.0470
Blessed Wine	734	3.8600	4.1800	3.9854	0.0375

Mann-Whitney test / Two-tailed test:

U	8.5000
Expected value	258,001.0000
Variance (U)	61,747,679.7043
p-value (Two-tailed)	< 0.0001
alpha	0.01

An approximation has been used to compute the p-value.