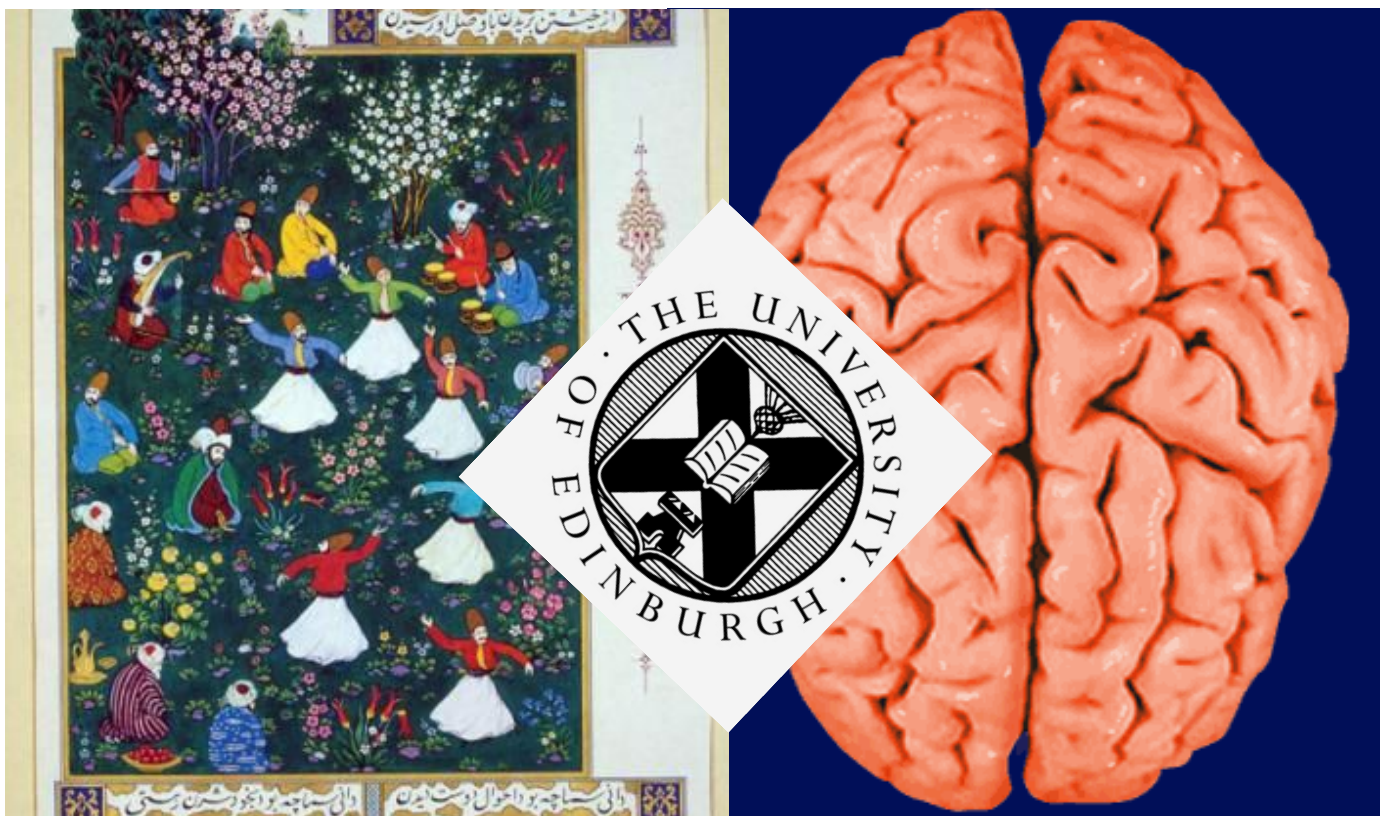


LIFTING THE VEIL

TO WHAT EXTENT DOES
IBN ARABI'S MYSTICISM OF UNVEILING CORRELATE
WITH NEUROSCIENCE OF INTUITION?



A Dissertation Submitted for
the Degree of MSc in Science and Religion
at The University of Edinburgh,
Department of Divinity, August 2020



ABSTRACT

The aim of this dissertation is to bring Ibn Arabi's Sufism into interaction and dialogue with neuroscientific study through looking at the topic of intuition. The two approaches to understanding intuition will be compared in a way where Ibn Arabi's concept of unveiling (*kashf*) is defined as a type of intuition concerned on spiritual matters, whereas the type of intuitions addressed by neuroscience is worldly in its nature. Unveiling is the topic around which the whole dissertation builds and due to its divine nature, it is not only related to intuition, but also to spiritual experience. The origin and function of intuition will be discussed through asking the following questions 1.) Who are we in relation to God and the cosmos? 2.) How we acquire knowledge and what true knowledge is and? 3) Can we improve, as well as what is our goal?

TABLE OF CONTENTS

Introduction and Setting the Scene

Chapter 1.

The First Necessary Question: What Am I?

Defining God, Self and the Cosmos



Chapter 2.

How Do We Acquire Knowledge and What is True Knowledge?

Knowledge and Reason, Intuition and Unveiling,

Methods of Studying and Communicating Intuitive Insights



Chapter 3.

The Remaining Necessary Question: Why am I here?

Can We Improve and What is Our Goal?



Conclusion

Glossary of Arabic Terms

Illustrations of the Brain

Bibliography



INTRODUCTION AND SETTING THE SCENE



The aim of this dissertation is to investigate the *origin* and *function* of intuition according to Ibn Arabi's Sufism and neuroscience. Information received through intuition is here analysed as insight that we receive without the use of conscious reasoning. Ibn Arabi's Sufism will give the framework in which to discuss the topic in the sense that the concentration will be on a specific type of intuition, namely Ibn Arabi's concept of unveiling (*kashf*). The main goal is to illustrate similarities and differences between Ibn Arabi's claims and the neuroscientific findings concerning intuition. I will give an overview of existing neuroscientific study that I have interpreted as relevant in relation to intuition as unveiling, as well as justification as to why these particular studies are relevant in the context of unveiling. This means that on top of neuroscientific research on intuition, it will also be necessary to look at research on spiritual experiences in relation to our brain. This is because the intuition discussed here, namely Ibn Arabi's unveiling, is claimed by Ibn Arabi to come from God, and to contain eternal value, which follows that intuition understood this way resembles a spiritual experience. My main argument is that developing our intuitive skill is beneficial for us both neurologically and on one's spiritual path towards Ibn Arabi's God or the Ultimate Reality. I further argue that by understanding better the origin and function of intuition, we may potentially learn to recognize true intuitions from false. It is also the goal of this dissertation to awake future interest into study where Sufism's long history of embracing intuition as a form of knowledge is taken into consideration as a useful source for deepening the only just beginning neuroscientific research on intuition.

The chapter division is based on William Chittick's analysis of Ibn Arabi, where Ibn Arabi's idea of improving oneself is placed in the centre of his mysticism.¹ Chittick explains that according to Ibn Arabi we have a tendency to organize the world by dividing it into opposites, which then causes us to compare ourselves with the rest of the cosmos, and thus leads us to ask ourselves whether we can improve?² It is fundamental in this dissertation to consider how we can better improve ourselves, in this case with regards to strengthening our sense of intuition. Chittick summarises that according to Ibn Arabi, in order for us to have an idea of a direction called 'improvement', we must first define better and worse. Finally, to do so, we must ask two necessary questions that always have and always will haunt us: "What (*ma*) am I" and "what ('for what':

¹ William C. Chittick, *The Sufi Path of Knowledge* (New York: State University of New York Press, 1989), 1.

² W.C. Chittick, *Ibn 'Arabi: Heir to the Prophets* (Oxford, England: Oneworld Publications, 2007), 80.

lima) am I here for?"³ The construction of this dissertation is built within the framework of these two questions. The first chapter considers what we are and the last; what we are here for. I begin by explaining the meaning God, self and cosmos in this dissertation. Chapter two discusses more closely what intuition is and what can be done with it. Chapter three considers what we are here for and what is the potentiality of a human being.

It cannot be denied that there are certain questions every existent field of study and every human being stands equally as bemused in front of. Ponderings such as what intuition is, and whether the insights it provides can originate from a god or some kind of ultimate reality, are examples of such questions. This dissertation is not concerned on arguing a specific answer over another to these questions. All I can do here, is point the attention to the fact that we are together in that which we collectively do not know and then, turn the concentration from ontological questions to what is in-between us and the supposed God, or the Ultimate Reality.⁴ This is namely, our communication with Him, our access to the Ultimate Reality. This can be prayer. This can be the experience of love. This can, as this dissertation aims to point out, be *intuition*. Ibn Arabi would refer to these as signs of God. These signs are the closest to God we in this world will ever get.

Sufism

I have chosen the language of Sufism to speak of intuition, because Sufism is based on the mystical aspect of religion and it relies its understanding of the cosmos on what it calls 'the knowledge of the heart', as opposed to only dogma or scriptural revelation. I have further chosen Sufism because in it so many points of correlation can be found with other mystical traditions, such as Zen Buddhism, or Taoism.⁵ Because a Sufi's goal is to return to God in this world⁶, and thus overcome worldly existence, he seeks beyond the veils that our human condition lays in between us and God. The Sufi's path then, just like intuition, reaches beyond our daily awareness.

What exactly is meant by 'Sufism' depends on the cultural and historical context in question. The term itself began to be used in reference to the mystical and ascetic side of Islam around the 800, though Sufism had existed in its earliest form already since the year 700.⁷ It is most commonly viewed as a mystical school of Islam that depending on the culture, class and historical period consists of asceticism, mystical philosophy, and/or mysticism. During the twentieth century

³ Chittick, *Heir to*, 80.

⁴ Ibn Arabi's concepts when capitalized.

⁵ Toshiko Itzutsu, *Sufism and Taoism* (California: University of California Press, 1983).

⁶ E. Geoffroy & R. Gaetani, Geoffroy, E. & Gaetani, R., *Introduction to Sufism: The Inner Path of Islam* (Bloomington: World Wisdom, 2010).

⁷ Ibid.

it was brought to the Western world, which resulted in new religious movements such as Universal Sufism, however this has very little to do with the original Sufism in question here. Despite the historical, philosophical and theological differences in what is meant by Sufism, it can be generalized that Sufism concentrates on spiritual reality, found in the inner aspect of religion, as the most important part of reality (*haqiqa*). This spiritual reality is of my interest here, because it can ultimately be fully understood only intuitively.⁸

Ibn Arabi

What exactly Sufism argues depends on the Sufi in question. Among Sufi's who have concentrated on concepts related to non-rational knowledge, including intuition, as well as for example imagination and love, are for example Al-Qushairi (986-1074), Abu Hamid al-Ghazali (1058-1111), Shibab al Din Suhrawardi (1154-1191). I have however, chosen Ibn Arabi (1165-1240), for he does not neglect the value of reason all together, but believes it can co-work with our imaginative faculty and with intuition, here referred to as unveiling (*kashf*). Ibn Arabi is definitely one of the most important Sufis within Islamic mysticism. All branches of Sufism have been in one way or another influenced by Ibn Arabi, especially within Persian speaking areas.⁹

Ibn Arabi was born in Andalusia, Spain, but travelled widely around the Islamic world. He was both a mystic, philosopher and a poet. He wrote over 350 works, out of which some of the most famous are his *Mishkāt Al-Anwār* (The Niche of Lights), *Tarjuman al-ashwaq* (Collection of Mystical Odes) and *Barzakh* (The Concept of the Limit and the Relationship Between God and the World). Ibn Arabi's mysticism has become known in the West only during the modern times, and many of his texts still remain untranslated. There for, the number of available sources in English used in this dissertation is limited. I will mainly refer to the translations and interpretations of William C. Chittick and Michael Chodkiewicz. Ibn Arabi's main topics include the idea of becoming what he calls the 'Perfect Man'¹⁰, as well as perceiving the true nature of everything as Unity and Oneness. His understanding of the nature of reality is often said to resemble Neoplatonism in being in line with Plato's 'world of ideas'.¹¹ Ibn Arabi's idea of the Oneness of Being, and the Unity of everything has also been compared to the Neoplatonic concept of 'the One'.

Intuition – Unveiling – *Kashf*

⁸ E. Geoffroy & R. Gaetani, Geoffroy, E. & Gaetani, R., *Introduction*.

⁹ Chittick, *Sufi Path*.

¹⁰ See chapter 3.

¹¹ P. Remes, *Neoplatonism* (Stocksfield: Acumen, 2008).

Intuition is a method of receiving insight without the use of conscious reasoning. However, the content of the insight received, can be of various kind. For the sake of this dissertation I have divided intuition into two types in accordance with the insights it provides; *worldly intuition* and *divine intuition*. The first encompasses intuition of 1.) future events, 2.) moral correctness, 3.) other person's feelings or thoughts. This is the type of intuition that neuroscience to an extent can research, because its worldly nature makes it possible to be re-created at a laboratory setting. The second type of intuition involves intuition of 4.) one's self (such as intuition of one's own unconscious), 5.) the cosmos (e.g. a scientist having an intuition concerning the nature of the physical reality), 6.) of the Ultimate Real or of God. This divine intuition is of my main concern in this dissertation as it describes best Ibn Arabi's concept of unveiling (*kashf*). The insight received through unveiling is not just a human being's interpretation of the world, but rather a bit of the Ultimate Reality being revealed to an individual.

Unveiling differs from the worldly intuition in that it comes directly from God and its content is never tied to time and place the same way worldly intuition is but is rather eternal in its value.¹² Due to the divine source of unveiling it can be described as a spiritual experience. By spiritual experience I mean the same as John Hick does by his 'religious experience', namely that it can be any human experience beyond our ordinary perception, it "consists in modifications of consciousness"¹³ and it is determined as religious/spiritual in the light of its long-term effects in one's life. The content of unveiling exists already in and around us, but it is behind a veil and therefore we are not aware of it, until the veil is lifted.

Neuroscience and Neurotheology

Due to the nature of the intuition discussed here, the neurological research I use has to be of two kinds. Firstly, I will mention some attempts to study the neural correlates of worldly intuition, discussing the correlations of such study with Ibn Arabi's mysticism of unveiling. Secondly, I will look at the study of spiritual experience in the brain, since unveiling involves being in direct contact with God or the Ultimate Reality. Neuroscience is chosen in this research because it represents the kind of science that does not go about forming new theories concerning the cosmos but turns the mirror to ourselves and tries to pick apart the very thing in us making those theories; the brain. This way it helps us outline where rational understanding can reach, and in what topics might it be that we are left with only non-rational understanding or are indeed faced with something we can never

¹² Chittick, *Sufi Path*, 168.

¹³ John Hick, *The New Frontier of Religion and Science: Neuroscience and the Transcendent* (Hapshire: Palgrave McMillan 2006), 27.

know. God, according to Ibn Arabi, always remains in the unknown, and thus, the only way we can know something of Him, is to know what we do not know. In this sense, I believe it would be of interest to Ibn Arabi, were he alive today, to use neuroscience in order to better understand what we can never know rationally. This would help him to strengthen his point on the importance of non-rational knowledge.

Since we, according to Ibn Arabi, are the image of God, then what a better way to attempt to understand God, than trying to comprehend ourselves. It also seems, that the more we execute study that aims to prove something objectively true, the clearer it becomes to us what are things that will eternally remain possible to be measured true or false only within the subjective realm.

Neuroscientific study on our methods of communication with a supposed God or Ultimate Reality also helps us differentiate what is part of us humans in the physical reality, from what remains in the non-physical reality. It will be interesting to see whether intuiting can be found related to anything in the human brain the same way that the process of acquiring rational knowledge can. Finally, neuroscience provides an interesting comparison to Ibn Arabi's thought, because of the difference in methods of acquiring insight; Ibn Arabi claims to receive his wisdom through unveiling, where-as neuroscience bases its research on rational methods. My aim here is not to do neuroscientific research, but it is simply in providing an overview of some of the currently known results of neuroscientific inquiry concerning intuition and spiritual experience. However, I will not go deep into analysing the nature of the studies themselves, due to limited space in this work. I hope to emphasise what has not yet been studied or understood within neuroscience. Thus, I aim to depict what we, in our culture, that mistakenly assumes it has disenchanted the world, *do not know*. Comes out it is far more important to know what we do not know, than to simply know what we know.¹⁴

Looking at neuroscience, in relation to spirituality, inevitably requires the involvement of resources from cognitive neuroscience, neurotheology, philosophy, theology, anthropology and psychology to be combined.¹⁵ In this dissertation however, due to the lack of space, I will mainly base my arguments in the works neuroscientist Andrew Newberg, philosopher of religion, who has written on religious experience in the context of neuroscience: John Hick, and a book called "Principles of Neural Science", edited by neuroscientists Eric R. Kandel, James H. Schwartz and Thomas M Jessell. When combining neuroscience with the study something spiritual, such as here intuition as a spiritual experience, the field of study in question can be referred to as neurotheology. I will thus here, also use methods and sources of neurotheology. Neurotheology is a new emergent

¹⁴ A point made by both Ibn Arabi and Plato.

¹⁵ Andrew Newberg, *Principles of Neurotheology*. (USA: Ashgate, 2020), 17.

field, still unsure of its general direction and often criticized for its habit of generalizations of concepts as it jumps between fields. Yet, this fresh field is full of interesting new ideas, and its aim is not to give answers, definitions or conclusions, but to open conversation on the ways neuroscience and theology could potentially co-operate. While study of Sufism has yet remained rather unknown in the field of neurotheology, let alone neuroscience, research on Christianity and Buddhism has been discussed. Study on the neurological correlates of e.g. prayer and meditation, epilepsy and psychedelics, as well as the experience of the presence of something or someone unknown, has been conducted. Since in-depth correlation between Sufism and neuroscience yet remains to be had, in the meanwhile the relation of Buddhism to neuroscience is in this dissertation occasionally used as a correlating point of view. This makes sense since Buddhism and Sufism, especially Ibn Arabi's Sufism and Zen-Buddhism, are known to have a lot in common.¹⁶

Ian Barbour has explained the relation between science and religion to have four possible directions.¹⁷ Extending Barbour's theory to be true also of the relationship between science and indeed any spiritual matter, we can say that, the relationship may be a relationship of conflict, in which case only one of the fields must have the true answers. In other cases, it can be one of mutual independence, meaning that the concerns of science and religion are on questions completely distinct and thus they both serve a differing function and should not attempt to step on one another's areas. In the case of newly arising scientific fields, such as quantum mechanics and Bing Bang cosmology, the relationship can also be one of dialogue. Such dialogue begins from science recognising where its current limits end and welcomes religion to provide thoughts on the scientifically unknown. The final way for science and religion to interact is through integration. This can for example mean religious thinkers approaching topics concerning God through logical methods of reason, or scientists using techniques of religious practise to improve their scientific inquiry. In this dissertation I wish to suggest a relation of *dialogue and interaction* between Ibn Arabi's Sufism and neuroscience and thus in this chapter the concentration is on points of agreement between the two differing methods of inquiry. However, as Andrew Newberg points out, it is important to keep in mind that in reality, the nature of the relationship is entirely dependent on the question in hand and can thus be any of the above.



¹⁶ H.H. The Dalai Lama, *Where Buddhism Meets Neuroscience: Conversations with the Dalai Lama on the Spiritual and Scientific Views of Our Minds* (Colorado: Shambhala Publications, 2018).

¹⁷ Reference to Martin Barbour in Newberg, *Principles of*, 14-15.



Chapter 1.

The First Necessary Question: What Am I?

Defining God, Self and the Cosmos

In order for this dissertation to discuss intuition as unveiling and to explain how we can improve our ability to receive intuitive insight, we must first understand human potential in general. Thus, this chapter will define what is in the following chapters, according to Ibn Arabi and current neuroscientific research, understood as the ‘self’ in relation to ‘God’ and the ‘cosmos’.

As a Muslim, Ibn Arabi ponders issues on self, God and the cosmos primarily through the teachings of the Quran. However, he sees the function of the Quran to be worldly, intended to give directions concerning everyday life of the masses.¹⁸ His own task as a Sufi is to reach beyond the worldly by attempting to discuss the ultimate nature of reality. He also warns of deductive theology carrying the same risk as science and philosophy; namely the risk of explaining God away through logic and reason.¹⁹ In contrast to deductive theology, his mysticism is based on the claim that ambiguity is “an ontological fact, inherent in the nature of the cosmos”²⁰. This means that the true nature of the cosmos cannot be perceived through reason alone. It must be combined with tools typical for mysticism; experience and imagination, for that is the only road to perceiving paradoxes. Consequently, Ibn Arabi’s definitions of concepts are ambiguous and purposefully controversial from the point of view of reason. This must be taken into account when trying to make sense of his various use of metaphors in definitions of the self, God and cosmos.

Neuroscience operates within a materialist paradigm and so it attempts to find observable material correlates for everything it examines. While science can provide us information about physical life in the cosmos, it remains debatable whether or not science has a role to play in discussions of an immaterial self/soul or God. In Newberg’s words, science approaches the questions of self, God and the cosmos through the means of “adequate definitions, measures, methodology and interpretations of data”²¹. Religion, and equally in this case Ibn Arabi’s mysticism, “must maintain a subjective sense of spirituality, a phenomenological assessment of the nature of ultimate reality that may or may not include a divine presence, a notion of the meaning and purpose in life, an adherence to various doctrinal processes, and a careful analysis of religion

¹⁸ Chittick, *Sufi Path*, 213.

¹⁹ E. Denis and D.E. McAuley, Denis E. (*Ibn `Arabi's Mystical Poetics* 1st ed. UK: Oxford University Press, 2012),6-26

²⁰Chittick, *Sufi Path* 112.

²¹ Newberg, *Principles of*, 28.

from the theological perspective”²². In this chapter we will see, how based on these differing approaches, both fields have a say on what and who we human beings are.

God – Ultimate Reality

“Whithersoever you turn, there is the Face of God”²³

In order to understand the self and the cosmos in Ibn Arabi’s terms, we must first explain God, for according to Ibn Arabi, all existence mirrors God.²⁴ Apart from ‘Allah’, the Quran mentions 99 other names (asmā) for God²⁵, and in his *al-Futuhāt al-Makkīya* (Meccan Revelations), Ibn Arabi adds 17000 pages more on the topic: the list of names seems to be endless. All these other names refer to specific aspects of God that are not by themselves the whole of God but are attributes of Him.²⁶ Examples of such names are; Creator, Forgiving, Life and Knowledge.²⁷ When Ibn Arabi refers to Him as Allah (God), he is referring to what he calls God’s “Essence, attributes and acts”²⁸ as a whole. The Essence is the deepest and most divine aspect of God, it is God as

Ultimate Reality: as the Unity of Existence and the Oneness of Being: *Wujūd*.²⁹

Wujūd translates as ‘being’, ‘existence’ or ‘finding’ and ‘to be found’.³⁰ As Chittick explains, “*Wujūd* designates the Essence of God or of the Real (*dhāt al-haqq*), the only reality that is real in every aspect...On lower levels *wujūd* is the underlying substance of ‘everything other than God’ (*mā siwā Allāh*)...”³¹. These two levels of understanding *wujūd* are best explained by saying that we share God’s attributes, but not his Essence. God’s attributes are things we can experience within ourselves and the cosmos as different aspects of God. However, our human condition, limited by our body and our tendency to perceive the world through reason, prevents us from experiencing God as Ultimate Reality.³² In this sense, from an individual’s perspective, Ibn Arabi’s God simultaneously both is and is not, in the sense that we both know Him and yet we can never

²² Ibid.

²³ Quran 2:115.

²⁴ Chittick, *Sufi Path*, 7.

²⁵ Newberg, *Principles of*, 41-42.

²⁶ Chittick, *Sufi Path*, 5, 8.

²⁷ Ibid., 8.

²⁸ Ibid., 9.

²⁹ Ibid., 3,6.

³⁰ Ibid, 3.

³¹ William C. Chittick, *Imaginal Worlds: Ibn al-‘Arabi and the Problem of Religious Diversity* (USA: State University of New York Press, 1994), 16.

³² Chittick, *Sufi Path*, 80.

know Him. Just like “the shadow cannot perceive sunlight”³³, but yet its existence depends on the light, so we too cannot perceive God, but our existence depends on Him. Since we cannot truly know God, then all that can be said of God is what He is not. Ibn Arabi’s mysticism then, is in line with negative theology. “Glory be to Him who is known by the fact that He is not known! The knower of God...knows that he is one of those who do not know.”³⁴. The only exceptions are the prophets: they can receive revelations from God.³⁵ Yet even the revelations say nothing of God’s ontological nature, but rather of His law (*sharia*). By *Sharia*, Ibn Arabi means more than just the juridical law in the Quran, but also God’s moral and metaphysical law.³⁶

The attributes (*sifāt*) and acts (*af`al*) of God, while being of Him, yet are rather worldly in the sense that humans and the cosmos share these with God, and understand God through them, while the Essence remains unreachable to us. Since our human condition restricts us from truly knowing God as a whole, as Ultimate Reality, then rational conversation on God is doomed unsuccessful. Instead, according to Ibn Arabi, we must concentrate on “the experience of God’s being”³⁷ through his attributes. By reflecting as much as we can about the cosmos and about ourselves, we can come to know God’s incomparability; we come to be aware of God, though we do not come to know Him. Ibn Arabi’s God is not restricted to consciousness³⁸, but is present in everything³⁹ and so we can experience Him both within the physical, as well as the mental realms of existence, as both realms are equally mere reflections of God as the Ultimate Reality. This God is an ontological fact about reality, and thus exists for everyone and is, to an extent, experienced by everyone, whether believers in or outside of religious belief systems, or non-believers all together. Each individual perceives God differently, depending on who he himself is. In this sense, and since we can truly only know ourselves, “everyone worships himself”^{40, 41}.

Even though the scientific approach cannot exclude the possibility of God’s existence, it would in contrast to Ibn Arabi, always attempt to define the self and the cosmos first. It would then follow that the concept of ‘god’ is either the product of the mind, a name given to all that still remains unknown after defining the self and the cosmos, or a name given to all that is. Despite the fact that it remains debatable among scientists, whether or not God can be examined scientifically,

³³ Ibid., 7.

³⁴ Ibn Arabi in Ibid., 154.

³⁵ Chittick, *Heir to*, 51.

³⁶ Chittick, *Sufi Path*, 171.

³⁷ Ibid., 7.

³⁸ Ibid., 6-7.

³⁹ Ibid., 9.

⁴⁰ Chittick, *Heir to*, 112.

⁴¹ Chittick, *Sufi Path*, 341.

neuroscience has never the less attempted understand the concept of ‘god’ through research into the brain functions related to the experiencing of god. Study has been conducted on for example, prayer, meditation, near-death experiences, out-of-body experiences, epilepsy and psychedelics⁴². There are also studies that do not necessarily directly touch up on spiritual topics, but still have been implied as useful to the neurological study of religion: e.g. Split-brain studies and Persinger’s helmet research.⁴³

Generally, the issue is that all these studies fail to define God, or define God in very limiting ways, and thus the result of the study only succeeds in reflecting something in response to one particular, narrow, and subjective idea or assumption of what a god could be. Often this has not even been about what God is to an individual, but rather what someone else, in this case the researcher, assumes the God of another person, in this case the examinee’s, to be like. The one thing that has been learned from the neuroscientific study on God, is that religious and spiritual phenomena cannot be associated with any specific brain part or neural activity but must be assumed to show neural correlates in extremely complex neurobiological substrates⁴⁴ and the combination of several brain parts and various functions within the neural system. In accordance with Ibn Arabi’s view, only aspects of God can be studied, but the whole of God is something far more complex for the human mind to capture. This is a recurring issue for neuroscientists in general; how can they study the very thing that assigns the limits of our knowing?

The brain of course only limits our knowing provided that there is no separate mind or consciousness. According to Patricia Churchland,⁴⁵ a dominant view in neuroscience today, is that of Materialism⁴⁶; the idea that our mind is equal to our brain, and thus every idea we have, including the idea of a god, is nothing more than an emergent property of the physical brain. This is opposed to the view favoured in the Western science for good 400 years: Dualism, that argues the mind and the body to be separate and that consciousness exists on its own.⁴⁷ While neuroscientific study conducted from the Materialistic point of view studies the belief in a ‘god’ as an outcome of certain brain functions, possibly tracing back an evolutionarily beneficial aspect to it, the Dualistic point of view on the other hand, takes the study of god further from the realm of neuroscience, into the study of the mind. While it may be impossible for neuroscience to rationally solve the mind

⁴² Hick, *The New Frontier*.

⁴³ Ibid.

⁴⁴ Newberg, *Principles of*, 193.

⁴⁵ H.H. The Dalai Lama, *Where Buddhism Meets Neuroscience: Conversations with the Dalai Lama on the Spiritual and Scientific Views of Our Minds* (Colorado: Shambhala Publications, 2018).

⁴⁶ Ibid., 14.

⁴⁷ Ibid., 8.

body conflict, understanding how *experiences* look in the brain is less ambiguous and more beneficial for the sake of our lives on earth. The study of the *experience* of God⁴⁸ is then the aspect of God that neuroscience can attempt to study. This makes sense from Ibn Arabi's claim that we cannot know God, but only experience Him.⁴⁹

Generally speaking, the way neuroscience defines God depends on the other fields the neuroscientist carrying out the study decides to co-operate with.⁵⁰ It may consult statistics or the sacred texts of an existing religious/spiritual tradition to understand the general concept of god within a certain culture or community. Or it can look at the data of anthropological field work and choose to take into consideration the more subjective views on God. The mystical traditions, like Sufism, that tend to understand God not as separate entity, but rather "a force that permeates the entire universe"⁵¹ propose a new challenge for neuroscientific study of god, forcing it to not actually study a concept called 'god', but rather study the many different things related to it, such as compassion, love or in the case of this dissertation; intuition. This kind of study accepts our limited human condition and instead of studying that which by its very nature must remain unknown to us, concentrates on studying our relationship to God.

In a way from Ibn Arabi's perspective it is forgivable how neuroscience perceives God as a mere product of the brain, since ultimately, we can only know our selves, and so God as a product of the brain is God seen through our human lens. Yet in other ways it is not forgivable, because the scripture has been given to us and it should be regarded as sufficient in informing us of what God is not.⁵² According to the Quran God definitely is not just a product of the brain. It seems that Ibn Arabi's God can be simultaneously in line with the neuroscientific studies that relate altered states of consciousness and brain to experiencing god, yet from another perspective it has nothing to do with neuroscience. After all, as chapter two will explain, Ibn Arabi is not interested in insight that can be proven rationally and objectively, like the neuroscientific study requires. Yet Ibn Arabi would see importance in neuroscientific study concerning our self and our relation to the cosmos, since this way by studying the image of God, we may become aware of Him. While of course attempting to find neural correlates for God would, according to Ibn Arabi, be both wrong and impossible, yet neuroscience, along fields like theology, psychology and anthropology, can study God by studying humans and the cosmos. Following Ibn Arabi's line of thinking, it seems clear then, that before any dialogue between neuroscience and Sufism can be had, we must first establish

⁴⁸ Ibid.,13.

⁴⁹ Chittick, *Sufi Path*.

⁵⁰ Newberg, *Principles of*.

⁵¹ Ibid., 43.

⁵² Chittick, *Sufi Path*. 213.

how neither field cannot ultimately know God, and thus cannot truly answer questions such as whether intuitive knowledge comes from God or not. We can have dialogues on the topic, but only as long as we stay aware that the only ‘god’ this conversation can ever refer to, is the image of God.

Self

“When a person sees something of the Real, he never sees anything but himself.”⁵³

“He who knows himself, knows the Lord.”⁵⁴

In order to comprehend the many faces of God, we must understand the diversity of the existence of minds and brains. Ibn Arabi is keen on empathising the multiplicity of reality and the endless variety of existing souls, *nafs*.⁵⁵ I have here interpreted *nafs* to also enclose self, consciousness, and brain. The human self, according to Ibn Arabi, consists of three levels of existence: “clay, fire and light”⁵⁶, meaning “corporeal, imaginal (or psychic), and spiritual”⁵⁷. The corporeal here includes the body, and it can be inferred that it includes the brain too. The imaginal and spiritual includes consciousness, awareness, mind and soul (*ruh*). Even though *nafs*, also translates as ‘soul’, *ruh* is the soul Ibn Arabi refers to when speaking of the eternal soul within us that he believes dwelled with God before we were born. Ibn Arabi believes that the outer and the inner are interrelated and thus that all knowledge that we gain, including objective knowledge about the physical reality, simultaneously gives us understanding of our individual self.⁵⁸

Ibn Arabi emphasises our existence as borrowed from *Wujūd*, and as such we reflect the attributes of God.⁵⁹ Our consciousness or awareness, according to Ibn Arabi, “derives from God’s knowledge”.⁶⁰ It could then be said that everything our consciousness withholds, including especially the unconscious, originates from God. Having access to God in this special way is what for Ibn Arabi separates us from animals. He explains that firstly, through us God’s speech can be expressed via intelligence and secondly, we are capable of having discourse with God, through for example prayer.⁶¹ We further differ from the rest of the animals in having the rational faculty, which Ibn Arabi specifies is not separate from the faculty of imagination, but a distinct modality of knowing.⁶² Most importantly we differ from animals in that we can receive unveiling directly from

⁵³ Ibn Arabi in Chittick, *Sufi Path*, 341.

⁵⁴ Ibn Arabi in Chittick, *Sufi Path*.

⁵⁵ *Ibid.*, xii.

⁵⁶ *Ibid.*, 8.

⁵⁷ Chittick, *Heir to*, 525.

⁵⁸ Chittick, *Heir to*, 80.112.

⁵⁹ Chittick, *Sufi Path*, 8.

⁶⁰ *Ibid.*, 10.

⁶¹ *Ibid.*, 10.

⁶² Chittick, *Sufi Path*, 159.

God. It follows then, that we are more than just not God: we are the relationship between the Essence of God and everything else.⁶³

Ibn Arabi's doctrine of *tafādul*: 'ranking in degrees of excellence' teaches that some people are more aware, more knowledgeable than others.⁶⁴ He speaks separately of the 'common people', the friends of God (or saints, or Sufis), and the prophets.⁶⁵ He refers to himself as a saint. In a way, anyone can become a saint, by receiving the unveiling (*kashf*) from God, and in this way gaining insight to the inheritance of the prophets. Sainthood is however never tied to an individual, nor restricted by the constraints of time, whereas being a prophet is something that has a beginning and an ending and is attributed to a specific person.⁶⁶ It therefore follows that a prophet can be a saint, but a saint can never be a prophet. Among the common people our upbringing, experiences and culture shape us to large degree, but those of us who through spiritual practise and self-disclosure become 'friends of God' are eventually able to see the world for what it is, without such determining factors of their individual life blinding their view. Friends of God have found God already in this world.

The common standpoint of neuroscience with regards to the definition of our human individual self is well summarized by Newberg: "The fundamental concept of modern cognitive neuroscience is that our thoughts and feelings make us who we are, make up our existence and can be correlated directly to the functions of the brain"⁶⁷ and "If the brain perceives its multiple activities and organizes them into a reified category, then we call it the self (or consciousness)."⁶⁸

Due to the importance of our thoughts and feelings in defining who we are, the conversation on consciousness is central to neuroscientific research. At the moment no single definitive definition of consciousness exists in neuroscience or neurotheology, but consciousness is usually divided into primary and higher-order consciousness. The first is what animals have too: "an awareness of objects in the world" and "the ability to form mental images of them".⁶⁹ Higher-order consciousness "allows for concept of past and future and therefore the ability to think of the consequences of one's acts and feelings".⁷⁰ Ibn Arabi's understanding of the conscious and unconscious self does not dramatically differ from today's scientific one, since to him such topics are worldly matters.

⁶³ Ibid.

⁶⁴ Ibid., 8.

⁶⁵ Chittick, *Heir to*.

⁶⁶ M. Chodkiewicz, *Seal of the Saints: Prophethood and sainthood in the doctrine of Ibn 'Arabī* (Cambridge: Islamic Texts Society, 1993).

⁶⁷ Newberg, *Principles of*, 8.

⁶⁸ Ibid., 188.

⁶⁹ E.R. Kandel, *Principles of Neural Science* Fifth edition (New York: McGraw-Hill Medical, 2013),389.

⁷⁰ Ibid.

However, he is strict about the fact that the unconscious is not God, but merely our realm of imagination from which our interpretations or dreams of the reality arise.⁷¹

Due to the fact that according to Ibn Arabi we are able to perceive nothing but ourselves, this means that also when we perceive the cosmos, or any being, human or animal in it, what we really see is the reflection of our selves. This provides an interesting parallel to the study of mirror neurons and our ability to empathise. The mirror neuron study shows that the same neural areas activate when executing a certain task by one's self, as when perceiving another person carrying out the same task.⁷² This finding has changed the understanding of human beings as primarily empathic beings. Ibn Arabi's existentialist claim that our perception of the surrounding world is also subject to our individuality, is further illustrated by studies on psychedelics altering, both for short-term and long-term, our perception of reality. The consumption of psychedelic substances forces our brain to shut of certain functions and use other parts of it for entirely different functions than it in a sober state would.⁷³ Through this lens neuroscience could agree that our brain hallucinates the reality, never truly perceiving anything external, merely images or ideas of it. In this sense neuroscience would agree with the fact that our perception of the world is nothing but what Ibn Arabi calls 'cosmic dreaming'⁷⁴.

The fact that self-awareness is what makes it possible for us to discuss concepts like 'self', raises new questions in neuroscience, such as are human beings truly the only ones with this specific kind of self-awareness? It is important to point out that neuroscientific study does not have enough research on this yet, and thus cannot take on official stance for or against. In order to understand humans in relation to other entities, neuroscience ponders evolution of self-awareness as a result of a physical process our brain may have undergone. What does such evolutionary process look like, where does it trace back to and what are its evolutionary benefits? The only knowledge scientists have so far, is that in order for us to have become conscious we must have first developed structures such as "the inferior parietal region and its interconnections with various sensory association areas"⁷⁵, that allow "the generation of abstract categories and the ability to recognize the self"⁷⁶. This would then also suggest, that human beings might not be the only ones that are self-

⁷¹ Frederica R. Halligan, "The Creative Imagination of the Sufi Mystic, Ibn 'Arabi," *Journal of Religion and Health* 40, no.2 (2001): 275-287.

⁷² C. Keysers, *The Empathic Brain: how the discovery of mirror neurons changes our understanding of human nature* (Lexington: Social Brain Press, 2011).

⁷³ Hick, *The New Frontier*.

⁷⁴ Henry Corbin, *Alone with the Alone: Creative Imagination in the Sufism of Ibn Arabi* (United Kingdom: Princeton University Press, 1969), 239-242.

⁷⁵ Newberg, *Principles of*, 188.

⁷⁶ *Ibid.*, 188.

aware. There is evidence, such as the fact that “only higher primates respond to their image in a mirror as if it were a representation of themselves”, suggests that some primates, and dolphins, would have evolved to have some level of sense of self too.⁷⁷

Cosmos/Al-ālam

The cosmos or the universe, is for Ibn Arabi everything that surrounds us and that is known to us, but that is not God.⁷⁸ Every field of study that exists, studies in one way or another the nature of the cosmos. The self and the cosmos reflect the Ultimate Real, reflect God, and reflect each other. Our only difference to the cosmos is that we are conscious, whereas the world around us is not. Because we are conscious, it is in our nature to imagine and to dream. Ibn Arabi explains that in fact the cosmos is nothing but our dream, all of our layers of dreams at once.⁷⁹ When Ibn Arabi speaks of dreaming, he means the interpretation or individual perception one has of the cosmos. The content of our dreaming is dependent on one’s interpretation of his sense perception. However, just because the cosmos is the dream of the Ultimate Real, of God, this does not mean that the cosmos is not real. Instead, it rather means that cosmos is imagination, and “imagination is that which stands in an intermediary situation between affirmation and denial.”⁸⁰ Most importantly the cosmos is not something that ever stays one and the same, but it is in constant transmutation (istihāla).⁸¹

The interconnectedness of the cosmos, God and the self, is well expressed by saying that in order to know the cosmos better, we must study both God and ourselves. We can learn about the cosmos, through learning about the divine Names of God⁸². We can also learn about the cosmos through self-knowledge: by looking deeper into our soul (nafs), because this way we learn about everything around us, including other people’s souls too. By existing outwardly, as the cosmos does, it conceals all that we have the potentiality to become aware of. In summary, the self and the cosmos are actually the same image of God, but just from two different perspectives; the subjective and the objective. God, self and the cosmos are at once in unity, but yet distinct. Ibn Arabi also explains this by saying that the cosmos is the macrocosm, and the human kind is the microcosm, but what is more important is that both are only reflections of God’s Macro- and Microcosms.

⁷⁷ Ibid., 188.

⁷⁸ Chittick, *Imaginal*, 16.

⁷⁹ Corbin, *Alone with*, 240.

⁸⁰ S.H Bashier, *Ibn al-'Arabi's Barzakh The Concept of the Limit and the Relationship between God and the World* (Albany: State University of New York Press, 2014), 68.

⁸¹ Ibid., 68.

⁸² Chittick, *Sufi Path*, 10.

The study of any other aspects than brain, is of course not the primary goal of the neuroscientific research, but rather of for example biology, physics and chemistry. Thus, since my concentration is neuroscience, there is no space here to look at interesting topics such as the current theories of quantum physics, even though it would be tempting to draw parallels between Ibn Arabi's claim on how time does not exist⁸³, and the conversation on quantum mechanics and time travel. Instead we can simply acknowledge that Ibn Arabi's Sufism clearly differs from the departure point of scientific research in general, according to which in order for the research to be valid, it must reveal an objective truth about us or the cosmos. Science believes that in those ideas of the outer world, there lies some sort of point of unity for all human beings to agree on. Ibn Arabi would not completely dismiss this, for he does believe that our ideas of the outer world can and should to an extent correlate with the actual external world. Only he does not see the examining of the external as the only way to understanding existence. For him, one can find the same answers from within. For this reason, one should never search for answers only from outside or only within one self, but should let both perspectives co-operate, for the understanding lies in a state of 'in between'.

⁸³ Ibid.

Chapter 2.

How Do We Gain Knowledge and What is True Knowledge: Reason vs. Intuition?

“My Lord, increase me in knowledge”⁸⁴

“Knowledge is a light which God throws into the heart of whomsoever He will.”⁸⁵

Unlike many Sufis who place love at the centre of their mysticism, Ibn Arabi reckons gaining knowledge (*`ilm* or *ma`rifa*)⁸⁶ as the most important goal in human life.⁸⁷ He believes that seeking for knowledge will bring us pleasure and joy and take us closer to God.⁸⁸ Ibn Arabi clearly states that all knowledge is ultimately knowledge of God and that God created us in order that we then might know Him, but He also hid Himself from us so that we may now find Him.⁸⁹ Thus, our job is to seek for knowledge of God. We can seek either through our soul *nafs* or through our heart *qalb*. Here the soul refers to the worldly faculty of the self, as discussed earlier. The heart does not refer to a physical organ, but rather to that in us which experiences.⁹⁰ Ibn Arabi sometimes differentiates between knowledge as *`ilm* as opposed to knowledge as *ma`rifa*, by referring to *`ilm* as the knowledge acquired by soul, whereas by *ma`rifa* he refers to the knowledge of the heart. As the Quran also mentions⁹¹, Ibn Arabi explains that only God knows everything and all that human beings can have are glimpses of God’s knowledge. This means that even though we should aim to gain knowledge, we should never expect to know everything, but understand that the very search for knowledge is meant to be infinite, in both this world and the next.⁹² The only ones who can know more than just glimpses of knowledge are the prophets. The friends of God certainly also know more than the common people, but this is not because of them as individuals being special, but because of the inherited knowledge of prophets and other saints that is unveiled to them by God. While no one can fully know God, yet anyone can choose the sort of methods of gaining knowledge, that make it more likely for him or her to be close to God, rather than simply echo the constraints of one’s individual self.

Neuroscientific, like all scientific, understanding of knowledge is based on the idea that true knowledge is that which can be objectively proven. This proof has to be rational and logical.

⁸⁴ Ibn Arabi in Chittick, *Sufi Path*, 153.

⁸⁵ Chittick, *Sufi Path*, 170.

⁸⁶ Ibid., 149.

⁸⁷ Chittick, *Heir to*, 27.

⁸⁸ Chittick, *Sufi Path*, 153-154.

⁸⁹ Ibid.

⁹⁰ Ibid., 106-109.

⁹¹ Chittick, *Sufi Path*, 143, refers to the Quran 4:176, 8:75.

⁹² Chittick, *Sufi Path*, 153.

Cognitive Psychologists Ulric Neisser, describes well the view neuroscience takes on reality “There certainly is a real world of trees and people and cars and even books, and it has a great deal to do with our experience of these objects. However, we have no direct immediate access to the world, nor to any of its properties... Whatever we know about reality has been mediated not only by the organs of sense but by complex systems which interpret and reinterpret sensory information...”⁹³

The way our senses transform, store, recover, elaborate, reduce and use incoming information, is studied by cognitive neuroscience.⁹⁴ Understanding how we gain knowledge and what is true knowledge, then is a matter of understanding our cognition, and everything related to it; our conscious and unconscious perception, emotion, language, memory and action.⁹⁵ Cognitive neuroscience has modelled conscious and unconscious mental process through cellular studies on for example monkeys, as well through the study of patients with brain lesions. Neuroscientists still have no idea how the “firing of specific neurons leads to conscious perception”⁹⁶, because the study of consciousness as a whole remains outside of the reach of the current methods of science. The usual view among neuroscientists is that consciousness either emerges “from an understanding of neuronal activity” or that it is “not a discrete operation of the brain but the outcome of the computational activity of associated areas of the brain”.⁹⁷

Knowledge and Reason

According to Ibn Arabi knowledge can be gained through three different ways; *scripture*, *reflection or unveiling*.⁹⁸ Out of these three the first two are means arising from the rational faculty, whereas the third is received by the heart. It is the duty of the Scripture to remind us of the divine mysteries the existence of which our reason denies⁹⁹. Following the scriptures is the only way for us to follow the authority of God and His authority and law is the only sign post we have towards true and relevant knowledge. Ibn Arabi’s ‘reflection’ (*fikr*) on its part, is explained by William Chittick as “the power of thought or cognition...to put together the data gathered by sense perception or acquired from imagination in order to reach rational conclusions”.¹⁰⁰ In other words, it is called reflection when we use our rational faculty/reason (*`aql*)¹⁰¹ to reflect upon what we sense through

⁹³ Kandel, *Principles of*, 344.

⁹⁴ *Ibid.*

⁹⁵ *Ibid.*, 361.

⁹⁶ *Ibid.*, 386.


⁹⁷ *Ibid.*, 358.



⁹⁸ Chittick, *Sufi Path*, 159.




⁹⁹ Ibn Arabi in Chittick, *Sufi Path*, 154.

¹⁰⁰ *Ibid.*, 162.

¹⁰¹ *Ibid.*, 70.

our five main senses. This rational faculty is a restricted way of knowing, and in order for it to be directed correctly, it needs authority. The Scriptures provide that needed authority for one aiming to walk from ignorance to awareness. 

From the point of view of neuroscience, the process of gaining knowledge begins from our five main senses: auditory, olfactory, visual, tactile, gustatory, as well as “the somatic sensations of proprioception (posture and movement of our body), pain, itch, and temperature; visceral sensations (both conscious and unconscious necessary for homeostasis; and the vestibular senses of balance (the position of the body in the gravitational field) and head movement.”¹⁰² These senses intake  information from the physical reality and then our brain interprets this information. The representations our brain builds of the input is not solely based on rational analyzation of the information, but is affected by for example one’s past experiences, emotions and imagination too.  Despite the interconnectedness of different brain areas, it can generally be said that the brain, specifically the cerebral cortex, is similarly to how Ibn Arabi separates knowledge in *`ilm* and *ma`rifah*, divided into two hemispheres. The left hemisphere is responsible for e.g. reason, logic and language, where-as the right side is associated with emotion, imagination, and spatial comprehension. The co-operation of both hemispheres, enabled by corpus callosum, is crucial in order for one to interpret sensory knowledge. In this sense neuroscientific data supports Ibn Arabi in that the rational faculty has its limitations and is not helpful on its own.

In Ibn Arabi’s mysticism there is always less value given to the rational faculty, as opposed the knowledge that is received by the heart. He does mention ‘intellect’ as a kind of higher form of rationality where the rational thinking is combined with the knowledge of the heart, yet the conclusion in such thinking too is always rational in the end.¹⁰³ When reason is used to reflect on something, Ibn Arabi calls it ‘consideration’ (*nazar*).¹⁰⁴ Consideration is the next level of reflection, where reason is used in order to come to a conclusion. However, conclusions are very dangerous, since human beings in their nature cannot have any true knowledge of God or the Ultimate Real.  Thus, while the conclusions we come to rationally can sometimes by chance be correct, they may just as well be incorrect, purely modified by the fears and desires that our soul *nafs* conceals. The  issue is, we cannot tell when we are correct and when incorrect.¹⁰⁵ Despite the dangerous sides of reason, Ibn Arabi reminds how it is also what makes it possible for us to have self-control and  freedom of choice.¹⁰⁶ In this sense the reflection and consideration can bring us closer to God. They

¹⁰² Kandel, *Principles of*, 451.


¹⁰³ Chittick, *Sufi Path*, 129.



¹⁰⁴ *Ibid.*, 110.

¹⁰⁵ *Ibid.*, 145.



¹⁰⁶ *Ibid.*, 150.

can help us say ‘no’ to unhealthy desires and to consciously choose to follow the authority of the scriptures, the authority of God. At its best reason, in how it allows us to reflect and consider, can direct us to come to the realization of how much we do not know, and never will know.¹⁰⁷

Understanding this is the key to comprehending true knowledge, the key to receiving knowledge directly from God. 

There is of course a massive difference in how Ibn Arabi sees reason as dangerous, whereas neuroscience ultimately, as a field of study, studies reality through reason and logic, believing this to be the most reliable way to come to conclusions. Even though we can reason things incorrectly, neuroscience, like all science, believes objective proof is available to be discovered in order to eventually distinguish between wrong and right knowledge. This means, in contrast to what Ibn  Arabi says, we then can know if we were correct or incorrect. Identifying brain regions and functions and being able to conduct experiments on patients with brain lesions, has contributed to the task began by philosophers and psychologists, namely to recognize delusional behaviour. Today, neuroscience has tools at its use that make it possible for us to research more on how we  know what we know, and to distinguish between true and false knowledge. The equipment used by scientists can “detect the electric current produced by the skin, hormone levels, the amount of sugar used in different regions of the brain and the magnetic properties of blood.”¹⁰⁸ Examples of these technologies include; “multichannel electroencephalography (EGG) and magnetoencephalography (MEG), neuroelectric and neuromagnetic source imaging, and position emission tomography (PET)”.¹⁰⁹

Intuition and Unveiling

The third form of knowledge Ibn Arabi mentions is what I in this dissertation mean by intuition; it is not acquired by reason, but through spiritual practise and divine self-disclosure. Ibn  Arabi calls it “unveiling” (*kashf*), but he also refers to it as “[direct] tasting” (*dhawq*), “opening” (*fath*), “insight” (*basīra*), and “witnessing” (*shuhūd, mushāhada*).¹¹⁰ *Kashf* is “incontrovertible knowledge which is actualized through unveiling and which man finds in himself...he is not able to repel it. He knows no proof for it...except that which he finds in himself.”¹¹¹ The concept of 

¹⁰⁷ Chittick, *Heir to*, 119.

¹⁰⁸ Kim Hewitt, “The ‘Feeling of Knowing,’ the Psychedelic Sensorium, and Contemporary Neuroscience, Shifting Contexts for Noetic Insight. *The Senses and Society* 6, no.2 (2011): 187.

¹⁰⁹ Vaitl et al. “Psychobiology of Altered States of Consciousness.” *Psychological Bulletin* 131, no. 1 (2005): 99.

¹¹⁰ Chittick, *Sufi Path*, 168.

¹¹¹ Ibn Arabi in Chittick, *Sufi Path*, 169.

unveiling is based on an idea that there is a veil in between us and God, the cosmos and the Ultimate. This veil normally remains in between the worldly and the divine through-out our lives, but sometimes it is lifted, and the Ultimate Reality is revealed to an individual temporarily. The knowledge we acquire this way, is not something we come up with, instead it already exists, it is constantly in and around us, only we fail to perceive it due to the veil. We cannot decide whether or not we receive *kashf* at a given moment, because it is always a gift from God, given out of His will. However, what we can do is prepare our receptivity to it by developing our awareness through spiritual practise.¹¹² Through unveiling God reveals human beings “the situation as it is in itself” as well as “how to seek, for whom to seek, who does the seeking, and so on”.¹¹³ For a person who has taken the leap of faith and thus become more prone to receiving unveiling, this unveiling is a verification of that which previously he only knew through faith or in theory, but that he now can taste (*dhawq*)¹¹⁴, meaning know through experience.

Intuition, is viewed by neuroscience as “inferences derived from previous experience and thus the result of cognitive rather than sensory processes”.¹¹⁵ Neuroscience too, relates intuition to experience and even self-disclosure, but only if self-disclosure were understood as lifting the veil between one’s unconscious and conscious. The amount of experience on a particular field or topic one has, seems to correlate with an individual’s tendency to intuit in a way where the more experienced in the field in question relies on intuition more than the less experienced. It is also believed that idea is that intuitions derive from unconscious memory, also called ‘implicit memory’¹¹⁶ as opposed to explicit memory. Where Ibn Arabi’s unveiling originates from God, the type of intuitions studied by neuroscience, seem to be a result of quick unconscious processing of the data stored in brain, and are as such, merely a pre-form of rational deduction. If Ibn Arabi’s unveiling were comparable to the neuroscientific process of bringing our unconscious knowledge to our awareness, this would by no means restrict God to the unconscious. Ibn Arabi himself has said that God is both within and outside of us, and this would rather suggest our inner unconscious mirrors an outer one, perhaps some sort of a Jungian collective unconscious. How exactly neuroscience understands intuition depends completely on the study in question, because as we have established in the introduction, ‘intuition’ is a wide concept.

Examples of understanding intuition within the worldly context in which neuroscience has studied it, are intuition as the “feeling of knowing”, including “a sense of rightness and, hence,

¹¹² More on this in chapter 4.

¹¹³ Ibn Arabi in Chittick, *Sufi Path*, 158.

¹¹⁴ Ibid., 86.

¹¹⁵ Kandel, *Principles of*, 447.

¹¹⁶ Kandel, *Principles of*, 1446

meaningfulness.”, “‘The aha! moment’ or ‘flash of insight’”, “hunch”, and a ‘gut feeling’.¹¹⁷ In the study of intuition of self-knowledge, it has been found that intuition as the basis of self-knowledge, relies on what is called ‘the X-system’, consisting of the ventromedial prefrontal cortex, basal ganglia, amygdala and lateral temporal cortex.¹¹⁸ Another study on intuition as social intuition shows that “The ventromedial prefrontal cortex and basal ganglia are capable of learning abstract relationships between features of the environment...without conscious awareness or intention”¹¹⁹ These brain structures can then apply this abstract knowledge they have learned to new situation without conscious effort or intention.¹²⁰ It is questionable though, whether neuroscience really has or can study intuition, since it is rather difficult to command the participants of the study to have an intuition at a given moment. It is even harder to then check whether or not what they experienced, thoroughly was comparable to intuition that occurs without warning outside of the experiment.

Ibn Arabi makes a point about the difference between the theory of knowledge versus the actualization of knowledge in practise, through experience.¹²¹ While our rational faculty can know things correctly in theory, having such theoretical knowledge is not the same as truly knowing something by tasting (*dhawq*) it.¹²² Thus, when Ibn Arabi speaks of knowledge gained through unveiling as opposed to knowledge gained through reason, he also means that *kashf* is a more all-encompassing state of knowing, then knowledge purely known through reason. Yet tasting (*dhawq*) is not all there is to unveiling. Unveiling is knowledge through the “blowing (*nafth*) of the Holy Spirit (*rūh al-qudus*) into the heart (*rū*)”¹²³. Unveiling is a more noble form of tasting (*dhawq*), mainly reserved for prophets and friends of God, but sometimes bestowed for common people or persons of faith too. It must not be confused with revelations which are reserved for prophets only and are as such not possible for the common human capacity to receive. Unveiling thus seems to be a specific type of intuition, one concerned on the gnosis, not just any type of knowledge. Intuition as unveiling also allows one to see the reality as it really is in an ultimate sense, as opposed to merely intuiting small everyday things, such as future events, or another person’s thoughts.

The most famous example neuroscientific study on intuition is Antonio Damasio’s Iowa Card Study, where the participants are asked to pick cards from different packs.¹²⁴ Each pack

¹¹⁷ Hewitt, *The Feeling*, 168.

¹¹⁸ M.D. Lieberman, J.M. Jarcho & A.B. Satpute, “Evidence-Based and Intuition-Based Self-Knowledge: An fMRI Study.” *Journal of Personality and Social Psychology* 87, no.4 (2004): 421-435.

¹¹⁹ Ibid.

¹²⁰ Ibid., 424.

¹²¹ Chittick, *Sufi Path*, 149.

¹²² Ibid., 151. Ibn Arabi III 333, 17.

¹²³ Chittick, *Sufi Path*, 169. Ibn Arabi I 31.11.

¹²⁴ A. Bechara, et al., The Iowa Gambling Task and the somatic marker hypothesis: some questions and answers. *Trends in Cognitive Sciences*, 9, no. 4(2005):159–162.

contains cards with which you can either win or lose money. Damasio claims to have found that healthy individuals begin to intuit which pack of cards has more good cards, before it is logically and consciously possible to come to such conclusion. Participants with damage to ventromedial prefrontal cortex however, were not able to predict which pack of cards was better.¹²⁵ This suggests the role of ventromedial prefrontal cortex to be key in enabling us to intake unconscious, non-rational knowledge. It has further been discovered that damage to the ventromedial prefrontal cortex may harm one's emotional capacities, but not affect the ability for logical reasoning. This, like the study on intuition of self-knowledge and social intuition, suggests that if intuition is related to this part of the brain, then intuition and emotion are related. Since emotions are related to the right hemisphere, we could say that intuition can be related to the right side too. One line of inquiry could be to consider whether the damage to this part might also disable one from receiving unveiling?

Ibn Arabi's unveiling is never about gaining new information, but rather about the recollection of something we already once knew. Ibn Arabi believes that our souls (*ruh*, not *nafs*) were once with God and had access to the knowledge of God, but that as we were born into a physical body, we forgot what we once knew. Our task now is to gain back this forgotten knowledge through remembrance or recollection (*tadhakkur*) that takes place in the unveiling.¹²⁶ This idea of *tadhakkur* is based on the same belief as Plato's concept of Anamnesis.¹²⁷ The Anamnesis is a theory according to which knowledge is innate in us, like a universal inheritance that has lasted throughout human history, but that we at birth forget. It then follows the rest of our life is about nothing but gaining this knowledge back. Ibn Arabi makes the same point and reminds us, that there is no point to seek for knowledge, it is all within us already. While Ibn Arabi does not believe in Plato's concept of rebirth, he does agree that our souls were once somewhere else than our bodies; with God.

This idea of intuitive insight as recollection could be related to the neurological study of intuition from the perspective of innate knowledge. Neuroscience agrees with Ibn Arabi that intuitive insight is not new information, it is the unconscious use of information one already has. So far, the study of intuition and the brain has concentrated on how the experiences gained during an individual's lifetime can contribute to one's intuitive skill. The study of neurological study of innate knowledge would direct the conversation to a whole new field. Studies have shown that people who

¹²⁵ Ibid.

¹²⁶ Chittick, *Sufi Path*, 154.

¹²⁷ P. Remes, *Neoplatonism* (Stocksfield: Acumen, 2008).

have been born blind think and talk about objects of the visual reality similarly to sighted people.¹²⁸

This can mean that neurocognitive development is hardwired in us and does not depend on experience. Neuroimaging has suggested, that blindness re-organizes the visual system by for example, in the case of developmental blindness, “allowing ‘visual’ circuits to participate in high-level cognitive functions, including language processing.”¹²⁹ While a blind person’s brain may not form visual representations of the physical reality, his brain may yet be receiving the same visual input as a sighted person’s brain would. Perhaps better understanding of people who were born without one of our five main senses, as well as study on genetics could inspire a new perspective to studying intuition as innate knowledge. This would then, not be in contradiction with Ibn Arabi’s idea of the recollection of knowledge that we were born with.

If intuition is considered a valid form of gaining insight about reality, then it begs the question of how to tell true and false insight apart. According to Ibn Arabi, true knowledge always means knowledge of God, knowledge that takes one toward the road of felicity, as opposed to the road of wretchedness.¹³⁰ False knowledge is one that simply reflects one’s self, bouncing back and forth between the constraints of the human mind and self, but never receiving from God, never following the Divine authority. Ibn Arabi also contrasts this kind of rational knowledge, that is bounded by the self (*nafs*), with passions.¹³¹ The nature of passions is considered purer than reason in the same way that unveiling is; they do not undergo the consideration, or the reflection conducted by the human mind. Passions are of two kinds; accidental or inherent. The accidental passions are most of the time negative, because they are like desires; unexpected and rarely leading us towards the pursued road of felicity. The inherent passions however, are more like our primal urges to survive and to multiply, which means that inherent passions are necessary in order for life to exist. The way some neuroscientists have studied intuition resembles more the study of this kind of primitive hunches.

Consideration and reflection, being products of reason, are always prone to err. Reason tries to break the reality in to definable pieces, this way limiting the true nature of the Real, of God. It is thus, according to Ibn Arabi, always better to follow the heart, including the inherent passions, in order to avoid attempting to define what is forbidden to be defined; God’s Essence.¹³² However, if we were to follow the heart recklessly without authority, then we would become slaves of our

¹²⁸ Marina Bedny and Rebecca Saxe, “Insights into the origins of knowledge from the cognitive neuroscience of blindness,” in *Cognitive Neuropsychology* 29, no.1-2 (2012): 56-57.

¹²⁹ Ibid.

¹³⁰ Chittick, *The Sufi Path*, 147.

¹³¹ Ibid., 235.

¹³² Ibid., 212.

accidental passions, and we might begin to combine reason with our imagination in a way where we reasoned things to be the way that is most suitable for us. Thus, one must not follow only one's heart (*qalb*), or only one's reason (*'ilm*), but one must also follow the authority of God and the scriptures in order to correctly direct one's following of the passions, or interpretations of unveilings.

While for neuroscience true knowledge would need to be objectively proven, for Ibn Arabi, in the case of unveiling, objective proof is unnecessary and out of question. The only thing that matters in the case of unveiling, is the subjective certainty one has concerning the truthfulness of the intuitive insight. The proof of the truthfulness of unveiling is thus a matter in-between oneself and God. From a neuropsychological perspective it is easy to see the danger of interpreting false fantasies rising from unconscious fears or hopes, as intuitions. Ibn Arabi recognizes this danger too. He warns those who begin to deepen their receptivity to unveiling and begin to receive more of it, that there is simultaneously the danger to be "tempted by Satan" and to let one's own "caprice depend upon himself rather than follow the Prophet."¹³³ The word of the prophets in the Scripture is the only objectively perceivable source that can define whether an intuition claimed to be unveiling, truly is that. Unveiling would never be in contrast with the scripture. Of course, the scripture can be interpreted in various ways, but Ibn Arabi believes only one of them is true, the same way that only one physical reality is true, but yet we all perceive it through slightly different lenses. True knowledge is knowledge of Real Wujūd, in contrast to knowing by chance, conjecture or being convinced by fantasy.¹³⁴ One could also check that one really has received unveiling by comparing it to the written accounts written by prophets and mystics through-out history. "The prophets, in spite of their great number and the long periods of time which separate them, had no disagreement in knowledge of God, since they took it from God. So, also are the Folk and Elect of Allah: The later ones affirm the truthfulness of the earlier ones, and each supports the others."¹³⁵ The content of true unveiling would not be in contradiction with the earlier accounts of unveiling reported by others.

Apart from *kashf*, there is also another aspect of Ibn Arabi's mysticism that could be related to intuition. This is something arising from the rational faculty; the inherent (*dhāti*) perception¹³⁶, which is never wrong, as opposed to non-inherent perception that often errs because it relies on imperfect reflection. It can be said that this inherent perception is a kind of intuition too in the sense

¹³³ Ibid., 256.

¹³⁴ Ibid., 153.

¹³⁵ Ibid., 135.

¹³⁶ Ibid., 166.

that it knows without consciously first reflecting or considering the matter in hand. However, inherent perception seems to be concerned on intuiting matters that are rather worldly in comparison to unveiling (*kashf*). There is always a rational explanation existing for the knowledge of the inherent perception, only the inherent perception perceives the thought in question rapidly, before having consciously become aware of the rational explanation behind it.

It makes sense to say that Ibn Arabi's inherent (*dhāti*) perception comes closer to the type of 'worldly intuition' that neuroscience has researched. Unveiling as a method of gaining information may be found to have similar neural correlates in its function as 'worldly intuition' has. However, as established in the introduction, due to its origin being from God, it seems relevant to also discuss unveiling in the context of the neurological study of spiritual experience. Even just the fact that we can know things without consciously having acquired them, seems mystical in itself. Yet, can it be categorized as a spiritual experience, especially if the origin of such knowledge could potentially in the future be explained by neuroscience and even found in the neural correlates of the subconscious mind? Ibn Arabi explains that God commanded human beings to seek for knowledge of the temporary things, not of His Essence. Thus, from Ibn Arabi's point of view, whether we seek for knowledge through reason, reflection and consideration or receive knowledge through intuition, the knowledge itself is always, as long as it is perceived by us, going to concern only the worldly matters. At the same time, from this perspective mathematical or scientific findings can be spiritual just as much as, say theological or mystical insight can. This is in the sense that all type of knowledge is equally restricted by our human condition, but can also be unveiled to us by God, if He so wills. The main reason to consider unveiling as a spiritual experience however, is the fact that it originates from God and plays a role within the spiritual development of an individual.¹³⁷

Methods of Studying and Communicating Intuitive Insight

There are several reasons why the comparison of Ibn Arabi's Sufism with neuroscience has to, for now, remain speculative and surface level. This is due to the differences in their method of study, as well as their way of communicating information to the rest of the world. Ibn Arabi claims to receive his mysticism of unveiling, through unveiling, whereas neuroscience uses reason and logic in its study. This explains why his mysticism is often so controversial and paradoxical and why he has on purpose left it that way. Ibn Arabi knows intuitively and having practised his intuitive skill for years through his Sufi path, he also is able to rely on intuition more than people commonly are without practise. What is more, in mysticism, in this case Sufism, phenomena are

¹³⁷ More on this in chapter 3.

categorized and defined according to what is useful for the sake of the philosophical or metaphorical understanding of a particular topic. In neuroscience, however, concepts must be understood in relation to the physical structure and function of the brain. For this reason, it is hard to know with which neuroscientific concepts certain Sufi concepts be equalled to. Franz Joseph Gall brought forward the idea that specific regions in the brain are responsible for different functions.¹³⁸ This has meant that neuroscientific studies have typically focused on the study of a particular brain region and function at once. This is opposed to what Ibn Arabi expresses through the use of several metaphors in order to describe one and same phenomenon: he is trying to make a point about the interrelatedness of concepts. However, the discovery of neural plasticity: the capability of the central nervous system to adjust when injured or changing environments, has transformed neuroscience, encouraging the study of the brain as a unified whole, parts of which cannot be properly understood if analysed as independent from the rest of the system. What is more, the discovery of the importance of the relation of brain function to the rest of our physical existence, most notably to genes, questions the validity of the current reductionist approach used by neuroscientists. This may be helpful to the future dialogues between neuroscience and mysticism.

Like all science, neuroscience too relies on asking new interesting questions, rather than claiming to provide ultimate conclusions to the issues in hand. This is something Ibn Arabi would appreciate as a method of gaining knowledge through mapping what we do not know. Whether neuroscientific study believes that it will eventually be able to answer all its questions, or whether it sees itself limited by the human conditions in away where it ultimate can merely concentrate on asking new questions, depends on the study and the neuroscientist in question. However, the fact that neuroscience finds in our brain the neural correlates of our non-rational faculties, surely must remind the neuroscientists themselves that their very method of research is most likely limited in its scope, since it is only conducted using the rational-faculty. It is commonly known that scientists through-out times have also benefitted from intuitions that appeared to them through dreams or drug-induced states. It is also obvious that making a good hypothesis for any scientific research requires not just reason, but a very good imagination.

The scientific method of study forgets that becoming conscious in the level of thought, reason or verbal expressions, is not the only way to reveal what is in our unconscious or to gain knowledge of the reality in general. Quite the opposite: some unconscious information is better understood when not delimited by definitions or descriptions. Michael Polanyi is known for his

¹³⁸ Kandel, *Principles of*, 8.


concept of *tacit knowledge*, which means non-verbal knowledge.¹³⁹ Polanyi writes of the misconception of the verbal knowledge being the main way of understanding the world and reminds us how most alive beings, animals and plants in the world, manage to communicate through other means altogether. He argues against the claim that human beings merely put into words the same things the tacit knowledge aims to express without words, and rather claims that putting tacit knowledge into a verbal form changes the very knowledge in hand, narrowing or distorting its meaning all together. In the context of unveiling then, the challenge is how to transfer the eternal insight received through unveiling to other human beings, without ruining it by involving one's individual views or the use of reflection and consideration in one's expression of this knowledge?

In the case of artists and poets, the communicating of this kind of *tacit-knowledge* can happen through inspiration. It is typical for inspiration to take one by surprise and to involve no direct conscious reason as to how one came up with the inspiration in question. From Ibn Arabi's perspective, when we know intuitively (through unveiling), it is not us who know, but it is God who knows.¹⁴⁰ Perhaps inspiration could be thought of as related to intuition as unveiling in the sense that it is a continuation of God using humans as mediators between the divine and the worldly. In this manner the Sufi mystics become vehicles of God the moment they communicate their intuitive insight to others. They become mediators through which the streams that originate from outside our self and the cosmos, can run. While Intuitive knowledge comes in to us, inspiration goes out of us, and takes the form of, for example, mystical poetry. Mystical poetry is a good example of how to communicate *tacit-knowledge*, because it masters the use of metaphors, but also, and this is where it differs from other type of poetry, aims to not let the authors personal thoughts, or emotions interfere when communicating this non-verbal knowledge. At its best mystical poetry provides a middle state of understanding; knowing without concluding or defining. If it is so that mystical poetry can transfer *tacit-knowledge* successfully, then this would suggest that in some cases intuitive insight does not have to remain subjective. Since mystical poetry is ambiguous, and so often irrational, just like intuitive knowledge, it also follows they both teach us to understand the nature of reality as paradoxical, just like Ibn Arabi encourages us to do.

Perhaps neurological study could benefit from better understanding of metaphors. Often results of scientific study of spiritual phenomenon can be interpreted differently, depending on what one wants to prove. Adapting Ibn Arabi's perspective of reality as paradoxical might be helpful in the study of tacit-knowledge and spiritual experiences. It would be fascinating to see new methods

¹³⁹ Kit Dampney et al. "The Meaning of Tacit Knowledge." *Australasian Journal of Information Systems* 10, no. 1 (2002).

¹⁴⁰ Like it says in the Quran "You threw not, when you threw, but God threw" (Quran verse: 8:17).

of expression within neuroscience: imagine a scientific report of an experiment involving lines of poetry and consideration of the philosophical and mystical insights concerning the topic in hand. Since scientists can benefit from intuition too, perhaps the value of this non-rational insight for scientific study could be empathized more. Would it not be intriguing to see non-verbal communication being normalized in scientific research and accepted as just as important as the verbal methods of communication? 



Chapter 3.

The Remaining Necessary Question: Why am I here?

Namely, Can We Improve and What is Our Goal?

Now we have established that we are both human and divine, both individuals and the cosmos, each of our aspects mirroring each other (chapter 1). We have also seen how, according to Ibn Arabi, we are by nature seekers of knowledge and we have discussed how we can gain true knowledge (chapter 2). So, we know that in theory we can develop through gaining more knowledge as either *'ilm* as well as *ma'rifa*, but is this development easier for others and more unlikely for someone else? What is more, why should we improve, can we not choose another goal and set it as higher than improvement? Most importantly, how does unveiling as a spiritual experience contribute to our goal in life?

For Ibn Arabi human beings are by definition potential beings and thus, if we never do anything to use this potentiality, then we have never truly become humans. We are both animal and divine, but we only become fully human once we actualize our divine realm: unlock our potentiality, through gaining self-knowledge.¹⁴¹ Here self-knowledge is important in the sense that, since we are images of God, but limited through our worldly form, then we can only learn about God through learning about ourselves (chapter 1). At its highest level reaching our full potential is what Ibn Arabi calls becoming the Perfect Man. Such a Perfect Man “is described by all the names [names or attributes of God] through having assumed their traits and realized them.”¹⁴² Meaning that one begins to see God in all things. The most common way to refer to such a person is to call him “the servant of God”. This is because on one’s spiritual path towards being the Perfect Man, one has had to abandon one’s individual self and submit fully to God in a way where gradually all one does is God’s doings through him.¹⁴³ This kind of surrendering is also described as “becoming nothing”¹⁴⁴ or more accurately; returning to nothingness, and is from such perspective comparable to the Buddhist idea of reaching Enlightenment through overcoming one’s individual selfhood. Instead of calling ‘Enlightenment’, Ibn Arabi calls it ‘Realization’.

Becoming the Perfect Man through Realization, is related to unveiling in the sense that as one aspires to go further and further on one’s spiritual path, the level of the unveiling received gradually deepens, until the veil is fully lifted and one’s sight is replaced with God’s sight. One no

¹⁴¹ Chittick, *Imaginal*, 36.

¹⁴² Ibid.

¹⁴³ Chittick, *Imaginal*, 36.

¹⁴⁴ Ibid.,

longer sees through the restricted human perception but is merely a mediator between the worldly and the divine, the vehicle through which God sees. This means that developing one's receptivity or preparedness to receive unveiling is essentially the path to Realization. Ibn Arabi reminds us of this in the following passage; "...you have the preparedness to receive perfection, if you understand [understand yourself, hence self-knowledge]...blame only yourself if you do not receive that to which you have been called!"¹⁴⁵ Thus, everyone has the potential to improve and they should attempt to do so. What's more, The Scriptures, in this case the Quran and the Hadith have informed us that this path toward reunion with God (which becoming the Perfect Man essentially means) is the only correct goal in life. Only a few of us reach Realization, but "God guaranteed everlasting happiness to those who follow Sharia to the extent of their capacities, whether or not they reach perfection."¹⁴⁶

According to Ibn Arabi we can all improve, but only in a way where we develop into our true selves, that we already, in the eyes of God, are.¹⁴⁷ As explained in chapter 1, Ibn Arabi empathises the differences between individuals and so for him there is no universal definition of what is improvement or what a Perfect Man is like. By gaining insight on one's self, the cosmos and God through unveiling, it slowly becomes clearer to an individual, what is his own unique path towards improvement and Realization. Because human beings, due to their imperfectness, can never fully reflect God. In order to reflect God in the best possible way, one must first understand who one is, and then reflect the Ultimate Reality from that perspective. Improvement then, is a matter between the individual and God alone and it is not something that would be relevant to be proven objectively. Simultaneously, a core part of Realization is ceasing to separate one's self from others and simply letting God be through you in a way where the God or "The Real" is your hearing, seeing and all your faculties.¹⁴⁸

Realization is beneficial in the sense that through reaching for this goal one will gradually no longer be visited by "ignorance, obfuscations, doubts, or uncertainties."¹⁴⁹ Most of all becoming the Perfect Man brings one joy. The human condition itself is painful in that we have no choice but to continuously seek for knowledge, question it, be confused by it. The joy caused by walking the path toward full unveiling, toward Realization, "eliminates the pain of seeking"¹⁵⁰.. The source of the pain is the worldly self *nafs*, including the ego, reason and desires. Through knowing ourselves

¹⁴⁵ Chittick, *Imaginal*, 38. Ibn Arabi III 266.20.

¹⁴⁶ Chittick, *Imaginal*, 38.

¹⁴⁷ Itzutsu, *Sufism and*, 454.

¹⁴⁸ Chittick, *Sufi Path*, 167.

¹⁴⁹ Ibn Arabi in *Ibid.*, 167.

¹⁵⁰ Ibn Arabi in *Ibid.*, 158.

as images of God, not merely as our worldly selves lead by reason and animal desires, we can cease suffering and become one with the Ultimate Real. Reaching Realization must begin from “using consideration and reflection in accordance with the scriptural law”¹⁵¹. In practise this means that the person walking this spiritual path must listen to the following advice: “practising obedience to Him, examining (*murāqaba*) the thoughts that occur to your heart, shame (*hayā*) before God, halting before His bounds, being alone (*infirād*) with Him, and preferring His side over yourself”¹⁵² Gradually, he must completely cease listening to his rational interpretations. Individuals who wish to come this far and to remain on such path, must follow the Sufi way and “...start to polish their hearts through invocations, reciting the Koran, freeing the locus [of God’s self-disclosure] from taking possible things into consideration, presence (*hudūr*), and self-examination (*murāqaba*).”¹⁵³

Study of brain plasticity has made it possible to perceive human beings as full of potential for change and improvement also neurologically. We know now that both the functions, as well as the physical shape of the brain can change throughout one’s life,¹⁵⁴ as opposed to only during youth, as was believed earlier. This has allowed new perspectives in neuropsychology concerning the potential treatment of mental health issues. What is more, the study of the relation of brain to the mind has suggested that while everything our mind does is found in the brain, also sometimes the mind is not affected by certain things found within the brain. This is fascinatingly suggested in a study on Alzheimer’s and aging conducted on nuns.¹⁵⁵ This study, that began in 1986, is still on going. It has been found that participants whose brain was after death discovered to show clear signs of Alzheimer’s disease, showed no symptoms of the disease during their lifetime. Such discoveries motivate one to perceive all human beings as having the potential to become who they choose to: perhaps even Ibn Arabi’s Perfect Man.

The practical advice Ibn Arabi gives concerning the path to Realization is in several ways in accordance with the points of correlation on paths chosen by, not just Sufis, but all mystics, and indeed many monks and nuns within Christianity and Buddhism too. It then follows that neuroscientific study of the life styles and spiritual practises of individuals who have dedicated their life to spiritual development, may help us ponder the neurological correlates of Realization in the context of Ibn Arabi. Study on brain and spiritual experience has been conducted from various perspectives through studying for example psychedelic experiences, meditation, prayer, epilepsy,

¹⁵¹ Chittick, *Sufi Path*, 166.

¹⁵² Ibn Arabi in *Ibid.*, 168.

¹⁵³ *Ibid.*

¹⁵⁴ Kandel, *Principles of*.

¹⁵⁵ D.A. Snowdon “Aging and Alzheimer's Disease: Lessons from the Nun Study 1,” *The Gerontologist* 37, no.2 (1997): 150–156.

synaesthesia, and the effects of a brain helmet. A deep understanding of all those studies would be beneficial for any future study on the relation between Ibn Arabi's unveiling and the neuroscience of intuition. Meditation for example requires letting go of ego and surrendering to god/gods or some kind of ultimate reality.¹⁵⁶ It is known to slow down brain functions related to self-awareness and stress.¹⁵⁷ Perhaps this is in line with Ibn Arabi's idea that in order for us to truly know ourselves and gain joy in a deeper level, we must actually let go of our self-awareness.

Psychedelics on their part, can allow a person to open up to play with imagination in a way that allows him to reshape his worldview, even his physical brain structure. Psychedelics "alter the biological component of consciousness via biochemical effects".¹⁵⁸ "One theory postulates that psychedelic substances alter the functioning of neurotransmitters, and also reduce activity in the prefrontal cortex, limiting higher cognitive functions, while stimulating the limbic system."¹⁵⁹ What is more, "LSD induces a heightened awareness of sensory input that is accompanied by an enhanced sense of clarity, but reduced ability to control what is experienced."¹⁶⁰ The effects may include for example "a feeling of obtained true insight" or "depersonalization"¹⁶¹, what is more, users have also often reported to experience intense "aha! moments"¹⁶². An illustrative example of an experience on psychedelics of something comparable to *kashf*, is found in a quote from John Perry Barlow, who here describes his psychedelic experience in 1966: "...I sensed connectedness of everything. It was obvious to me that all of the separateness I ordinarily perceived was, in fact, an artefact of cultural conditioning, and was indeed less "real" than what I was supposedly hallucinating. At that moment, I knew that I was, for the first time, experiencing things as they are, utterly continuous. There is no discontinuity. There is not one thing and another thing. It is all the same thing, the Holy thing."¹⁶³

¹⁵⁶ Hick, *The New Frontier*, 186-190.

¹⁵⁷ *Ibid.*, 187.

¹⁵⁸ Hewitt, *The Feeling*.

¹⁵⁹ *Ibid.*, 178.

¹⁶⁰ *Ibid.*, 180

¹⁶¹ *Ibid.*

¹⁶² *Ibid.*

¹⁶³ *Ibid.*, 181.

CONCLUSION

We can conclude that the extent to which Ibn Arabi's mysticism of unveiling correlates with neuroscience of intuition depends both on how we define who we are in relation to God and the Cosmos, as well as on what we believe is the purpose of life. The neuroscientific views on who we are do not contradict Ibn Arabi's Sufism from Ibn Arabi's point of view, but from the perspective of neuroscience, Ibn Arabi's mysticism has nothing to do with science as it is not based on rational knowledge. While discussions on the purpose of life do not belong to the field of neuroscience, yet there are brain studies that seem to not contradict Ibn Arabi's views on spiritual experience and the goal of life.

Main differences between neuroscience and Ibn Arabi's Sufism are: firstly, the role that Scripture plays for Ibn Arabi, but not for neuroscience and secondly, that the two understand the subjective and the objective differently. This is merely an issue for neuroscience, whereas Ibn Arabi sees no need to distinguish between the subjective and objective. Points of agreement between neuroscience and Ibn Arabi's Sufism can be found firstly, in the fact that a fully functioning brain requires having both the rational as well as the intuitive faculty, just like Ibn Arabi too believes that human beings need both realms. Secondly, some of the practises or life choices involved in bettering one's receptivity to unveiling are suggested by neuropsychotherapy to be beneficial in improving one's life quality. We can further summarize that the *origin* of intuition as unveiling is, according to Ibn Arabi, God, whereas from the point of view of neuroscience the origin is still unknown, but potentially related to the right hemisphere, ventromedial prefrontal cortex, the unconscious and the neural correlates of spiritual experience. Unveiling as a type of intuition can *function* as means of getting closer to God, communicating tacit knowledge, as well making better decision decisions in all fields of life.

When confronted with questions on the ultimate origin of the self or the cosmos, people in both the fields of science and religion can finally base their judgement on only one thing; intuition. Rather than delaying us in the issues of the relation between scientific data and the arguments of a certain religion, the experience of intuiting connects us to where our conscious knowledge ends. Through more of this type of research, one can inquire whether it is possible to come to a similar conclusion through paths as different as religion and science, or in this case, Sufism and neuroscience, or are their arguments insurmountably in opposition? This dissertation has depicted that interaction and dialogue between Sufism and neuroscience can be had, despite their differences. However, further study is required to understand exactly in what sense they can co-operate.

GLOSSARY OF ARABIC TERMS

‘Aql: Rational faculty/Reason

Af’al: Acts

Basīra: Insight acquired through unveiling (ex. *kashf basari*: visual unveiling)

Dhāt al-haqq: The essence of God or the Real

Dhāti: Inherent

Dhawq: Direct tasting of something as opposed only knowing in theory. Knowing things like how a specific food tastes or how love making feels require *dhawq* in order to be truly understood.

Fath: Opening in the sense of knowledge of God becoming available to a person or the veil in between humans and the Ultimate Reality being lifted and the true nature of the reality being revealed.

Fikr: Reflection, meaning when our cognition reflects upon the information sense perception has taken in from the external reality or thoughts imagination brought to minds and forms interpretations or representations of the input.

Haqiqa: The Real or the Ultimate Real

Hayā: Shame

Hudūr: Presence, especially being present with God

‘Ilm: Knowledge of the rational faculty

Infirād: Being alone

Istihāla: Constant transmutation, in Ibn Arabi’s work this is used to describe the mortality of everything in the Cosmos and thus it’s constant movement and change.

Kashf: Unveiling as knowledge of the heart, knowledge of eternal topics, received from God and found in one’s self, and not possible to rationally comprehend or prove.

Lima: For what

Mā siwā Allāh: Everything other than God, meaning human beings and the rest of the Cosmos, as well as things attributed to Satan.

Ma: What

Ma'rifa: Knowledge of the heart

Murāqaba: Self-examination

Nafs: The mortal soul or self in the worldly context of the lifetime of an individual. Includes the physical existence, all faculties of the brain, such as self-awareness and the ego.

Nafth: Blowing of the Holy Spirit

Nazar: Consideration as a higher stage of reason. Used in order to come to a conclusion.

Qalb: Heart, but not the physical organ, and not related to sentiments or feelings, but with knowledge and love of God.

Ruh: The divine immortal soul that according to Islam and Ibn Arabi, dwelled with God before we were born, and had knowledge of God, but forgot it at the moment of birth into a human body.

Rūh al-qudus: The Holy Spirit

Sharia: God's law found in the Quran and the Hadith

Shuhūd: Witnessing

Sifāt: Attributes, especially attributes of God

Tadhakkur: Remembrance or recollection of the knowledge in our soul (*ru'*). We gained this knowledge as we dwelled with God when we were mere souls (*ruh'*), but we forgot it at the moment of birth. Comparable to Plato's Anamnesis, except for the fact that Ibn Arabi does not believe in reincarnation.

Tafādul: Ranking of degrees in excellence

Wujūd: Being, existence, finding or to be found

ILLUSTRATIONS OF THE BRAIN

1. Ventromedial prefrontal cortex (see figure 2 and figure 5) (See pages 25-26)
2. Basal ganglia (Figure 1 and figure 6) (See page 25)
3. Amygdala (Figure 4 and figure 6) (See page 25)
4. The cerebral cortex and its two hemispheres (Figure 3 and figure 6) (See pages 21-22 & 37)
5. Corpus Callosum (Figure 3 and figure 6) (See page 21)

Figure 1.

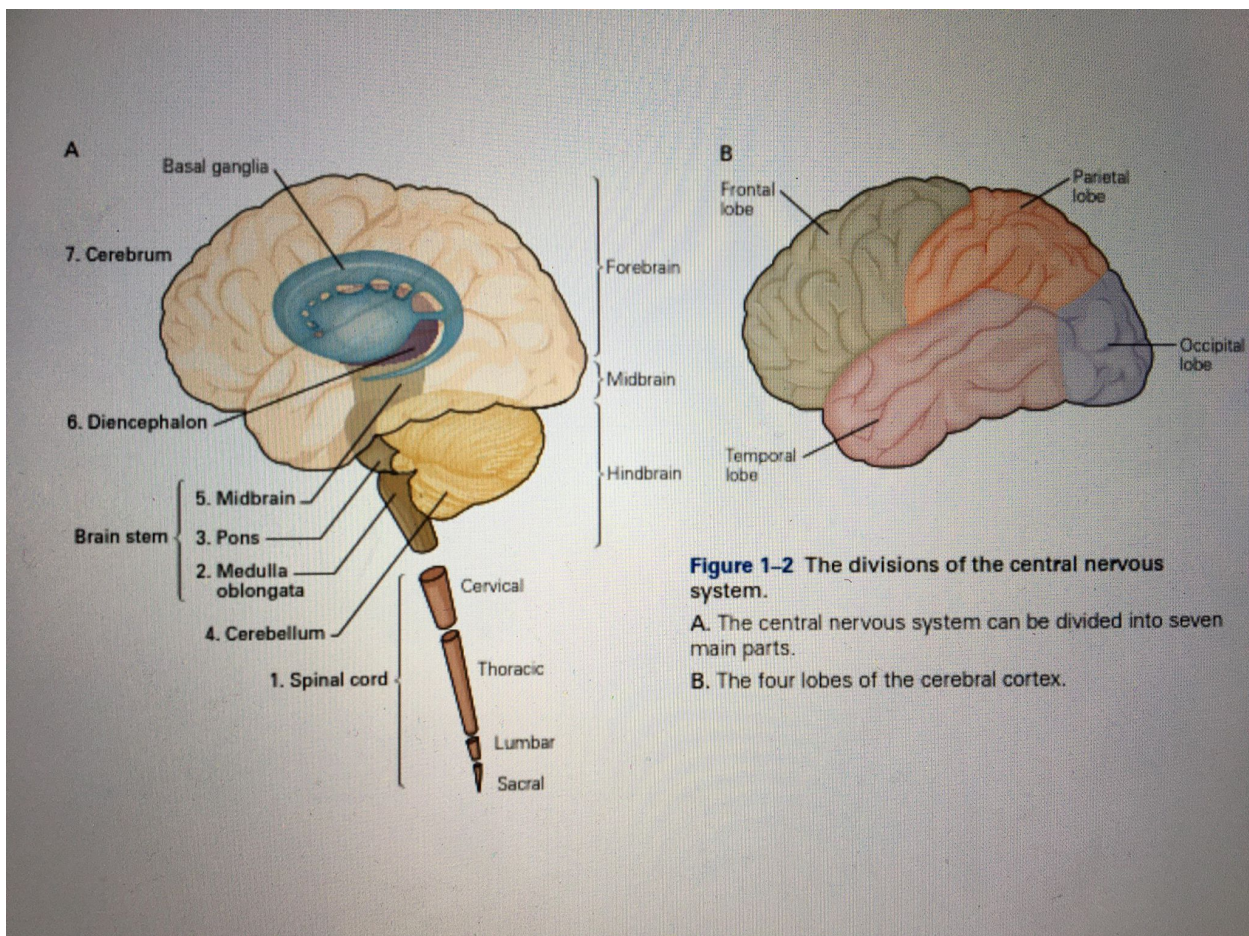


Figure 2.

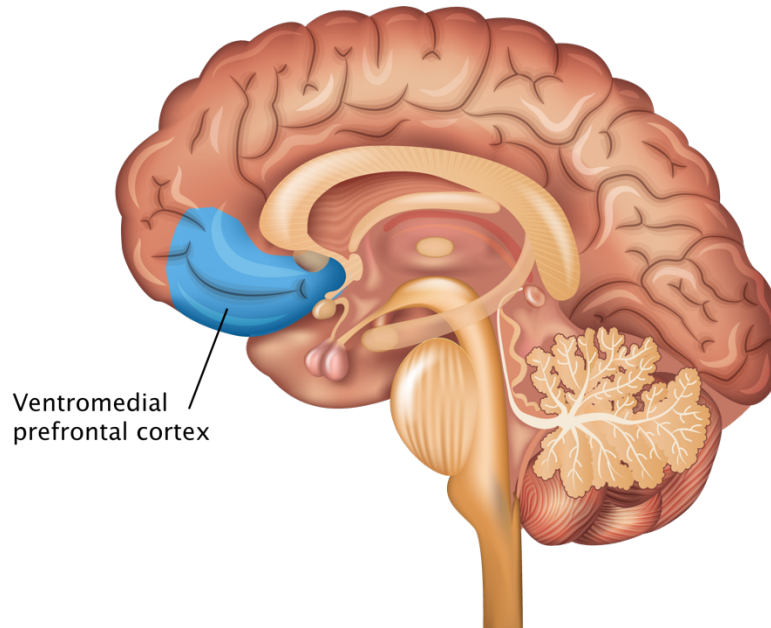


Figure 3.

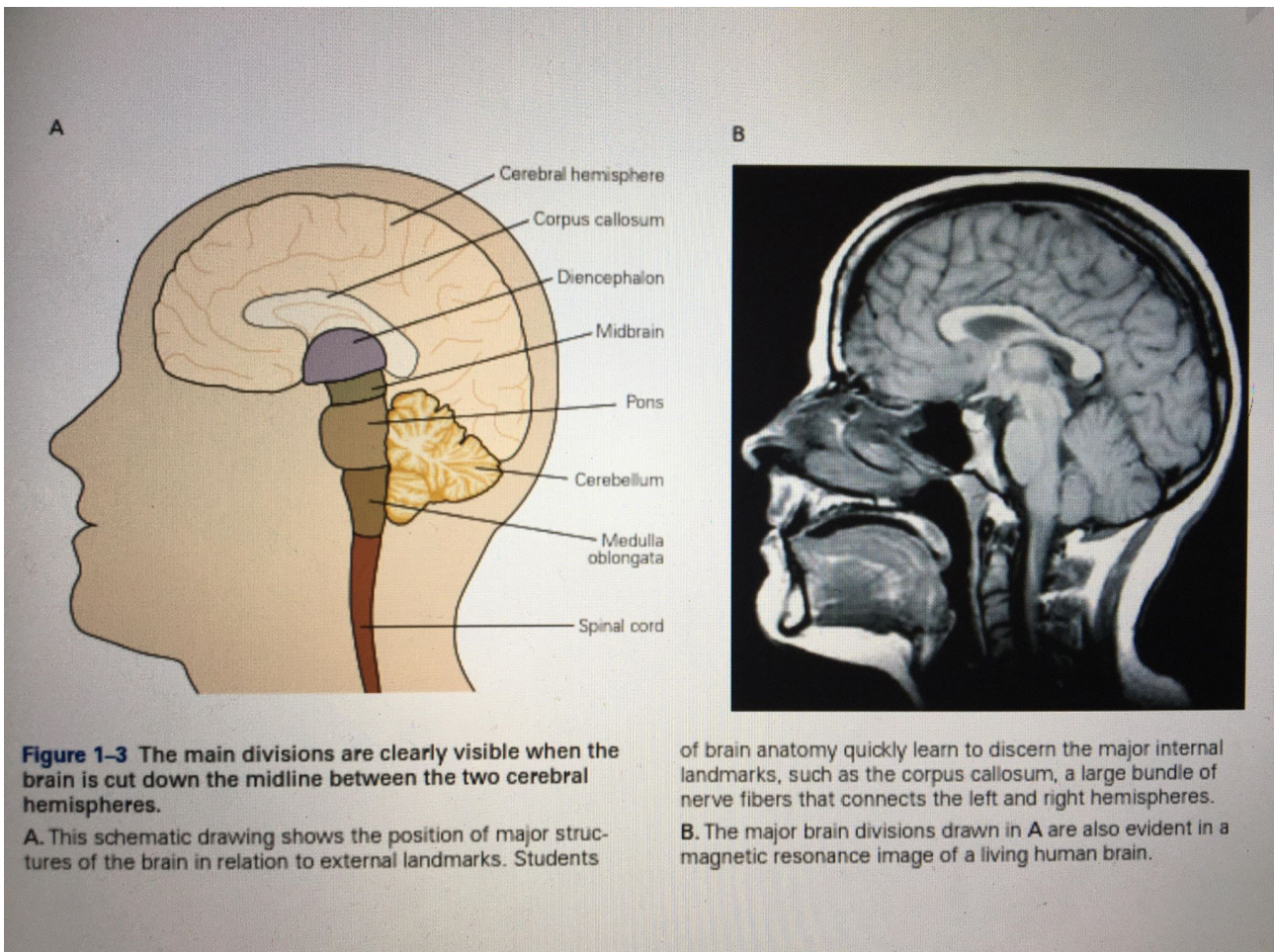


Figure 4.

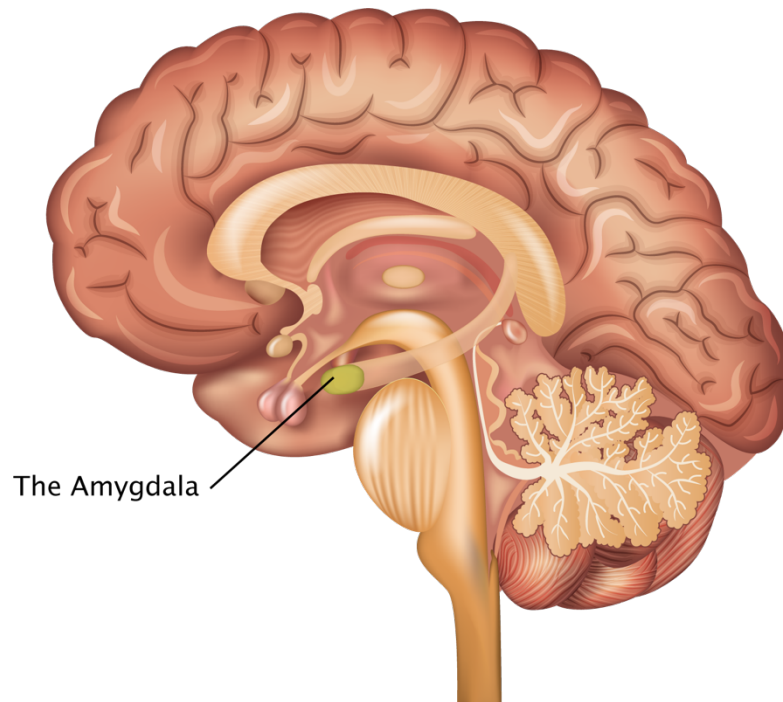
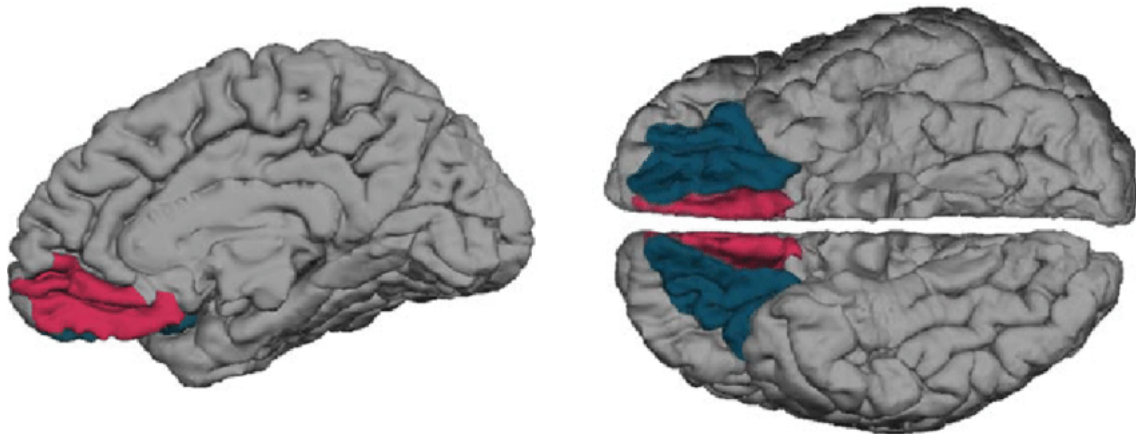
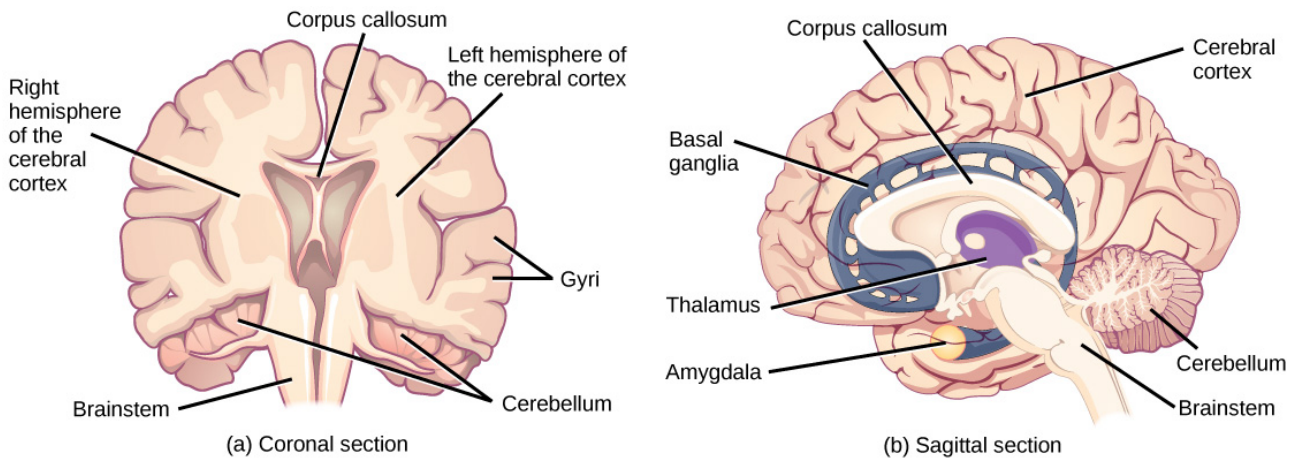


Figure 5.



Ventromedial prefrontal cortex (vmPFC). On the left is a medial view of the right hemisphere with the fuchsia color representing the medial orbitofrontal cortex. The image on the right is a ventral view of both hemispheres with the fuchsia color representing the

Figure 6.



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Illustrations:

1. Page 1, picture on the right, "The Brain" in Brain Injury Australia: <https://www.braininjuryaustralia.org.au/brain-injury-2/brain-brain-injury/>.
2. Page 1, Image on the left side: The Met Museum, Islamic Art, <https://www.metmuseum.org/toah/keywords/islamic-art/>.
3. Under 'Illustrations of the Brain' Figure 2 and Figure 4 "Prefrontal Cortex" in The Science of Psychotherapy: <https://www.thescienceofpsychotherapy.com/prefrontal-cortex/>.
4. Under 'Illustrations of the Brain' Figure 1: Kandel, E.R. *Principles of Neural Science* Fifth edition. New York: McGraw-Hill Medical, 2013.
5. Under 'Illustrations of the Brain' Figure 5: Research Gate: https://www.researchgate.net/figure/entromedial-prefrontal-cortex-vmPFC-On-the-left-is-a-medial-view-of-the-right_fig3_51840692 (Text by Aaron D. Boes).
6. Under 'Illustrations of the Brain' Figure 6: "Central Nervous System" in Web Courses at UFC: <https://webcourses.ucf.edu/courses/1343117/pages/central-nervous-system>.