

Anatomy of Beliefs



Beliefs

Psychologically, our beliefs are central to our day-to-day existence. Our beliefs arise from our perceptions, which are maintained by our values. The values we hold provide the interpretive lens whereby we operate and negotiate through life.

Many values that form our perception were not consciously chosen, but were acquired passively through primary caregivers. During our early development these values solidified through reinforcement as we modeled the behaviors and values of those caretakers that approved our aligned choices. For most of us, we learned our values from our home environment. Yet in a wider realm, we adopted the values of our culture and society. Our familiar culture is after all, our long-term caretaking guardian through much of our life.

When conflicts occur in our world, it is often due to unaltered prejudice and social bias that simmered over time from our learned values. Such values were unchallenged by the unfamiliar differences that exist between all of us. Just as the familiarity of people and objects within our environment provides us a sense of control, we develop confidence and security regarding our choices to adapt with our surroundings. However, when we are confronted with the unfamiliar, we experience less comfort and often a sense of anxiety about our capacity to adapt to what we do not know. This is where fear can give rise to prejudice when it is unchallenged by new knowledge. This becomes an integral part of our particular philosophy of life or conception of the world, known as our “worldview”.



The Unfamiliar

If we live a life in relative isolation without more diverse experiences, we tend to become comfortable in what we know and less flexible with the unfamiliar. We may even rationalize that the familiar places, things and people provide us our “safety zone”, without the need to entertain the unknown. Yet this restricted comfort can prevent us from experiencing broader relationships and adventures in life. Not only do we deprive ourselves from rich and meaningful experiences undiscovered, but also we can limit our ability to adapt to new challenges we encounter in our life.

Finally, it is important to assess the patient's world view (Weltanschauung) before the trauma occurred. Individuals at risk of developing PTSD include those who tend to have an ‘all or nothing’ view of events and their part in them.

Cultural stereotypes (especially about gender role) are highly relevant (Turner et al, 1996).³

Beliefs provide us a sense of constancy and an order in an otherwise chaotic world. This is important for us to have comfort and security as life unfolds for us. No matter how sure we are about the situations we face in life, many beliefs can be altered by unexpected circumstances, which we were not equipped to handle. When we are faced with an unplanned or traumatic situation, our beliefs can be radically altered. The very fabric of our perception can be shifted along with the held values we embraced in our experiences. When one’s belief is crushed by a sudden and unexpected catastrophe, our very identity can be challenged and it may potentially arrest us in our daily function. Damaged beliefs are very difficult to rebuild.



This is readily apparent in Psychiatry when clients experience sudden, intense traumas resulting in Post-Traumatic Stress Disorders (PTSD). I have observed the impact of PTSD with some of my clients returning from wartime assignments. For these traumatized soldiers, even pre-assigned routines of life can be disrupted. For those that are significantly traumatized, their civilian

narrative is often rewritten; even their own identity can be significantly altered.^{1, 2}

What I like to present in this paper is a model I have designed which may provide a way to understand how beliefs, our perception and our values fit together. My model seems to align with research efforts in neuroscience studies and consistent with what I have seen in my clinical practice. Most importantly, this model can be revealing about how we form beliefs.

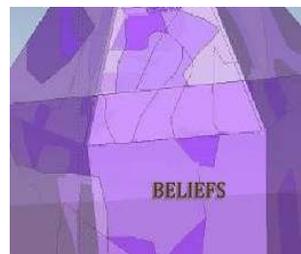
Anatomy is the area of medical study that explores how each body system works together for the whole body. One starts with the body as a whole and each system is covered in parts that comprise the whole. My goal is to explore the parts of belief in a similar manner. After considering the parts of belief, we will see some examples of how these parts play a role in the way we view experiences and how we negotiate our way in life. Join me and we will see uncover this topic together.

To start, let's move our chair up to see this model of beliefs. We will need to first establish that our 'beliefs', are more than one belief. When we say, "we have beliefs about X", we are relating more than one principle about "X". We are saying something about "X" and how "X" is related to other objects that we associate to "X". We have numerous beliefs related to a large variety of separate topic categories. Therefore, our beliefs are never a singular structure, but a class structures we associate as related to the belief we are addressing.



Categorical Beliefs

As depicted, each belief structure here represent a rock crystal with a 'set of ways", for each belief. Each structure is composed of numerous retained experiences with a common theme. For example, you may have a belief about God, a belief about Farming and a belief about cooking. Each belief topic, though clearly different from each other, are similar to other belief structures. This is my belief about cooking, apart from my belief about farming, apart from my belief about God.



Beliefs: a common theme

Our beliefs are also dynamic, as they are always changing in strength and connection to our values. When we affirm what we believe they become more fixed. When our beliefs are challenged by circumstances, they are modified and further qualified to more distinct definitions where they apply. Beliefs that are held and 'proven' over time from various collective experiences become foundational for our judgments about the world. When foundational beliefs are qualified by our experiences, then other beliefs that hold a similar interpretation are also qualified by association. It is like the same way neuronal connections gain strength in memory formation.



If A leads to B, which leads to C, then over time the repeating pattern will yield a connection from A to C. As primitive beliefs become established, (i.e. remain either untested or validated from additional experiences), they become more fixed and resilient to the new experiences, we encounter, much like the crystalizing of a stable molecular bond in a cooling rock.

The crystal metaphor can be helpful when you consider the different faces of a diamond. With this metaphor in mind, consider a categorical belief in this model..

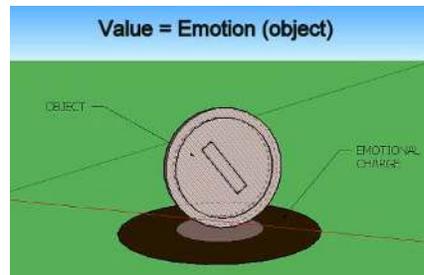
Our categorical beliefs (shown as a crystal) are a composite structure of many perceptions. Our belief about farming comes from the way we see the items, the tools, and the location of farm related objects. We all may share common interpretations about farming, but some people that do work in farming will have a vastly different perception of farming than someone who has never farmed. Perception is the lens from which we see and interpret our world. The lens of a farmer would be different from the lens of a one who never farmed.

Let us move our chair a little closer to look at a single lens of perception.

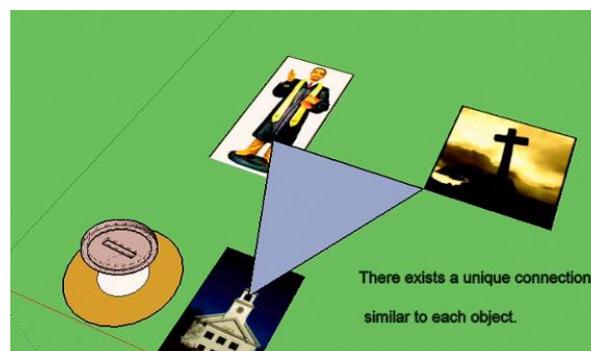


As I shared earlier, our perception is the lens we use to interpret what we capture in our world. You

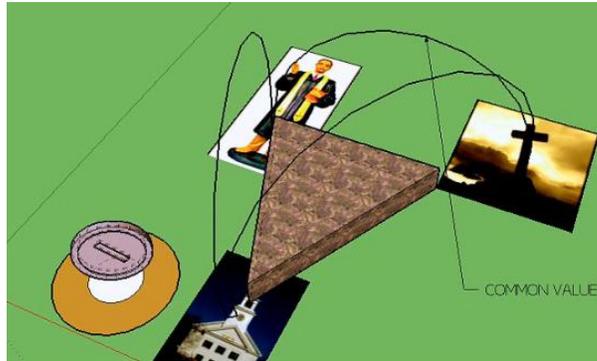
could put many doctors in a room and ask them questions about their role, their contribution, their influences etc. and they would all have a different 'view' on their world. Doctors would share many similarities with other doctors based upon **common values**. Yet, it is the difference in other **values**, which contribute to their difference in their perception and interpretation in world To a surgeon, all he may see as a solution is through surgical procedure. A psychiatrist may see solutions through modifying a coping strategy.



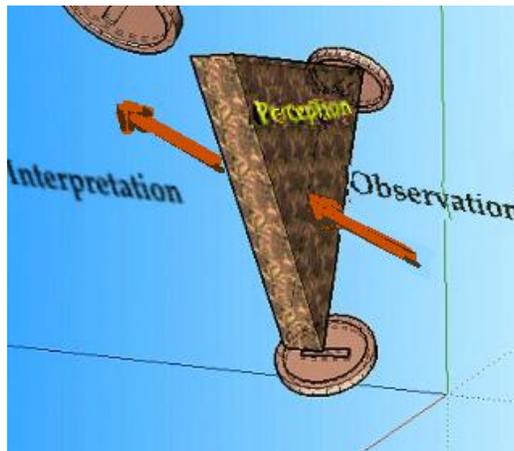
To explain this clearly, let us consider what I mean by a "value". In the broader sense, any identifiable object holds an emotional charge. My phone may not be important to others, but it is important to me. Therefore, I have a higher emotional charge on the object, "my phone". People like hobbies many enjoy collecting items where they see value. Some people collect stamps, others collect coins, cups, or cars etc. The items they collect have a particular value associated with them that I do not share. Over time, the object in their collection became equated with, value either directly on indirectly from their personal experience. Having this object brings a sense a pleasure. Maybe someone else they appreciated had a similar collection, or maybe the objects remind them of special moments in their life. When you place value on a particular object class, you will spend more time in activities or efforts related to those values. You visit a collectors store, you frequent flea markets, you check the classified ads, etc.



Let us consider the values related to the perception of "church". Certain values (charged objects) will establish your perception on the concept of "church". Here, I have three objects in the picture which represent "church" to me. There is a "pastor", a "cross" and a "steeple". These items are related to each other in my conception of "church".



As each value is related to the concept, “church”, they also play a part in relation to each other. If I consider the value of “pastor” alone, without the other values in the mix, I would be sharing my concept of “pastor” based on other values like, the time he and his wife visited my family at home, or the great sermons he gives, or his posture and reputation. However, this leads to another direction on my belief system. When I include the values of a “pastor”, a “cross” and a “steeple”, it isolates the lens of “church” for me. This lens contributes to my ‘perception’ of “church”.



As these values align together, they form the lens of our perception. The interpretation of anything we perceive is based upon the lens we use. If you apply the model to how you perceive your world, you can see that the differences of our perceptions are related to the values that lead us to the interpretations we hold.

Lets consider an example

Here we have three objects

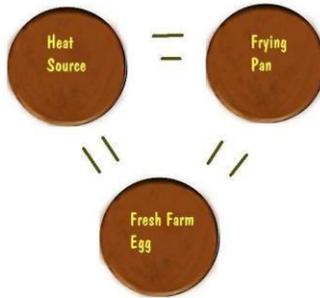
- 1) Egg
- 2) Frying pan
- 3) Heat



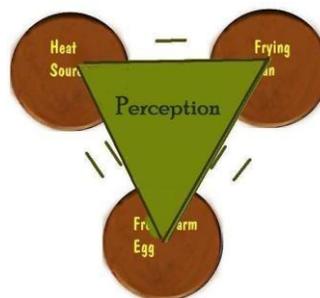
Objects linked by a common value (within the context of belief) will share a charge connection to the common perception filter.



Related objects resonate with shared situation



Perception filter: common Objects sharing a relationship



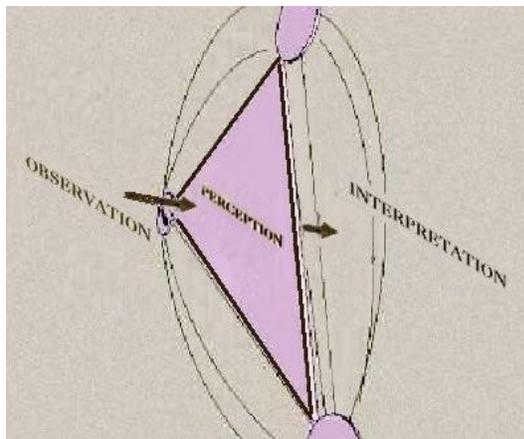
Common Object Theme: Perception Filter



Conclusion: Frying an egg

Behind every belief is a perception filter. Behind every perception filter are objects (attached with a value) connected by a common theme. Events observed through the perception filter will lead to a unique interpretation (based on the related object values). Interpretations are determined the objects connecting them by a common theme. They are object based perception lenses.

When we put it all together, we can see how “our perceptions” are established by particular values. The perception which have been validated as a part of our belief system will act as a filter on how we interpret our world. Agreeable interpretations which aligned to fixed filter will strengthen perception. Challenging interpretations will modify established perception or will be diminished.



Perception is the basis of memory

Now that I have shared the basis of our perception, you will better appreciate how it plays in the “value encoded memories” we use from day-to-day. I will share a very simple description of how the brain processes the ‘association mechanism’ parallel to this model.

Let us go back to our word game again.

You are a contestant on a game show. You are given three words to determine their common situational relationship.

What do you think of when I give you the following words?



Once registered, your **frontal lobe** prompts your **hippocampus** for query.

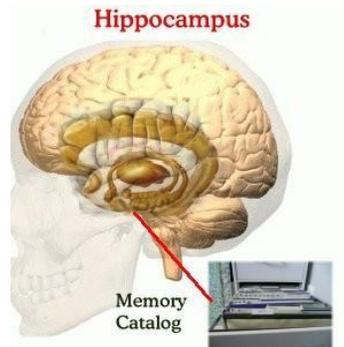
-The frontal lobe serves as the command and assessment function.

-The Hippocampus serves as a Index filing cabinet.



Frontal Lobe Query

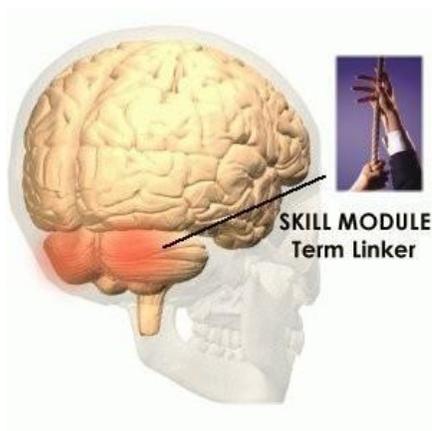
Hippocampal Library accessed by frontal lobe fingers.



(Hippocampus Memory Index)



The frontal lobe looks up each word in context.

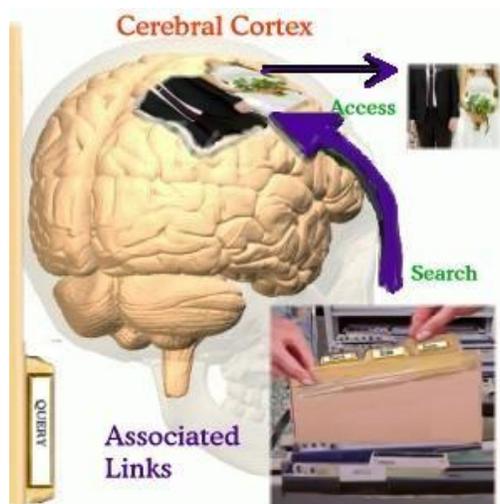


The Cerebellum serves a skills module subsystem

*Query Terms are “dog eared” for common associated links.
Each Term is Tagged and held in place for collective interpretive
summary.*



Situational association is grouped for query



The cerebral cortex is a complex association network

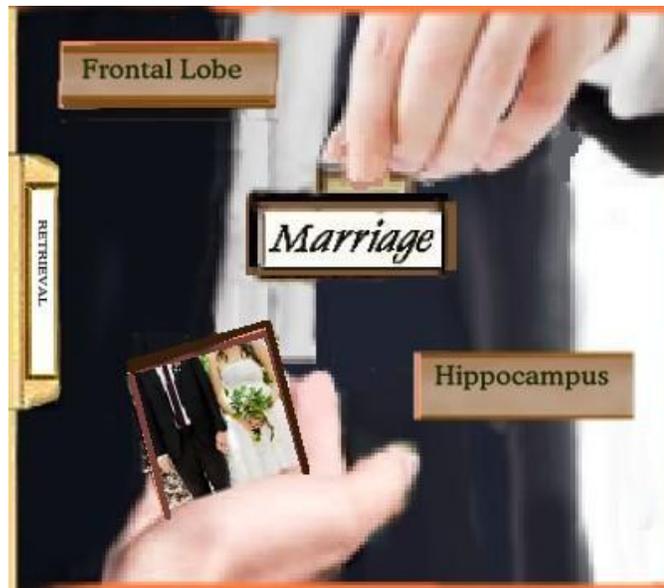
A common associated situation is located in the cerebral cortex and the retrieved address is marked.



Image link accesses word library (pyramidal cortex)



Associated situation is identified and acquired. Image-word match is retrieved (pyramidal circuit)



Answer is provided to the command center.

*I hope this model makes this topic easier to understand perception and memory.
Greg E. Williams, MD*

References

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Turner, S., McFarlane A & van der Kolk, B. (1996) The Therapeutic environment and new explorations in the treatment of post- traumatic stress disorder. In Traumatic Stress: The Effects of Overwhelming Experience on Mind, Body and Society (eds. B. van der Kolk, A. McFarlane & L. Weisaeth) pp. 537-558. New York Guilford.

