Research Essay

The Realization of Self in Everyday Life

Ken Levi^{*}

Abstract

This article is about the role of "self" in understanding consciousness. From a symbolic interactionist perspective, we can see how qualia emerge from "frames" of experience. These frames progress from the natural frame to the social frame to the focus frame to the holographic frame. In the natural frame stimuli from external sources are reflected on the surface of our body. These stimuli are parsed and consolidated, and ultimately projected onto a holographic frame. At that point not only do we reflect the outside world, but we know we are doing so. Such knowledge comes from what philosopher Henri Bergson calls the "principle of action-relatability." That principle relates the raw stimuli to how we might respond to them, which, in turn, tells us who we are. Consciousness is about self, and the process of self-definition underlies how we become aware.

Keywords: Consciousness, self-concept, symbolic interaction, frame analysis, holograms, holographic principle, sentient self, holographic mind.

1. Introduction

Most studies of consciousness focus on the "image" of the object of our attention. Representationalists argue that such an image occurs inside our heads (Pribram, 1971; Dretske; 1995; Block, 1996; Tye, 2000; Coates & Coleman, 2015). Supposedly, we experience our world through a filter of intentionality, or "aboutness." We view items of interest as intentional objects. The image of intentional objects that forms inside our heads represents what our perception is about. That image is projected onto a kind of internal movie screen (Bailey, 2006).

The problem for Representationalists, however, is two-fold: where exactly is this image, and what is it made of? Neuroscience, so far, has not detected any such image inside our heads. As Bergson (1896) notes, "No photograph of the external world is found in the brain." Moreover, electrical impulses, jumping from neuron to neuron, form the equivalent of digital 0's and 1's. How do these digital impulses result in images and sensations?

Even more problematic is the question of the viewer. If there really is an image projected inside our heads, then who views it? Is there, as Robbins (2016b) jokingly proposes, a "homunculus" inside of us? Is there a tiny person inside our heads watching the movie screen of the image?

^{*} Correspondence: Ken Levi, Independent Researcher. Email: levik2016@yahoo.com

But if so, how does the homunculus see the screen? Does he have a homunculus inside of him? And then, does the homunculus's homunculus have a homunculus inside of him? Et cetera. It leads to an infinite regress, and therefore doesn't solve the problem.

This article presents an answer to both enigmas. The answer is based not on neuroscience, not on quantum mechanics, not on spiritualism, and not on panpsychism. It's based largely on a combination of symbolic interactionism and physics. It's based on frame analysis, the Holographic Principle, and, ultimately the concept of the self.

2. What Is Consciousness?

The dictionary defines consciousness as awareness, and awareness as consciousness. Other definitions include wakefulness, sentience, alertness, realization.

Philosophers define consciousness as "qualia" (Tye, 2021). This is the intangible quality of an experience. It is a subjective quality, because only the person who has it can attest to it. For example, if you say, "I am running," other people can observe you doing it. But if you say, "I am hearing," only you can know that as a fact.

In *Knowing* (Levi, 2019), I define consciousness as the five senses: seeing, hearing, tasting, smelling, and feeling. These are the ways - the only ways - we have of knowing what's going on. Absent any one of these senses, the others compensate. But absent all, we are either dead or in a coma. We are "unconscious."

The five senses have particular properties. For one thing, they aren't actually activities. They are states of being. The activities are what we do to achieve those states. The activities include: looking, listening, eating, inhaling, and touching. Looking results in seeing; listening results in hearing; touching results in feeling; eating results in tasting; inhaling results in smelling.

As already noted, the five senses are intangible and unobservable to outsiders. They are also holistic, in the sense that they form a singular impact on us - a smell, a sound, a touch - and cannot be broken down into component parts. For that reason, they are analog, rather than digital.

But the main feature is one that's often overlooked. All of the senses require a "self." We don't say, "smelling the roses," or "feeling the heat." We say "I" am smelling, "I" am feeling, "I" am hearing, and so on. The "I" designation is integral to the aforementioned properties of subjectivity, states of being, and knowing. All of these properties require a self, as the central and essential ingredient for consciousness to exist.

Consciousness, then, is an intangible and subjective state of being for a "self." It involves not only the reflection of information from the environment, but knowing that reflection has occurred. This, for example, is what distinguishes minds from mirrors. The mirror can reflect images. But it cannot know that it has done so. A tape recorder can reflect sounds. But it cannot know it. Neither mirrors nor tape recorders have - or ever can have - a self. In sum, consciousness is a knowing reflection. It is a knowing reflection had by a self.

3. Frame Analysis

Now, let's take a look at what we mean by "knowing reflection." In his brilliant and pathbreaking volume *Frame Analysis* (1974), sociologist Erving Goffman defines a frame as how we perceive particular events. He distinguishes between two classes of "primary frameworks." These include the "natural frame" and the "social frame" (22). Natural frames are "purely physical," and require no interpretation. For example, a photograph of a table, a chair, and a person sitting on the chair would be a natural frame.

Social frames, however, "provide background understanding for events that incorporate the will, aim, and controlling effort of an intelligence" (22).

How that understanding occurs depends on how the events are "framed." Goffman distinguishes several "tracks" of information that inform that framing. These include the main track, the directional track, the overlay track, the concealment track, and the disattend track (247-300).

For example, suppose you are attending a play. The main track would be the plot unfolding on the stage. The directional track might include scary music intended to shape how you feel about the plot. The overlay track might be other audience members coughing. The concealment track might include what the actors are doing behind the scenes. And the disattend track could be the ushers cleaning up the aisles.

The point here is we rarely, if ever, encounter a situation raw. We selectively interpret those situations. For example, while for you, the theater-goer, the main track is the play. For the usher, at that same performance, the main track is the audience.

So, as Goffman instructs us, the "knowing reflection" in any given situation is usually not the raw event, but rather our particular take on that event. Indeed, the subtitle of Goffman's great work is *An Essay on the Organization of Experience*.

Of course, he's not just talking about any old experience. He's talking about *your* experience. And this is made explicit in one of Goffman's earlier works, *The Presentation of Self in Everyday Life* (1959). The interpretation of any frame you enter into tells you what kind of self you need to be, and what kind of self you are.

4. The Natural Frame, the Social Frame, and the Focus Frame

For any given event, the natural frame is our starting point. It's equivalent to what the mirror captures. By the same token, it's what our eyes capture on our retinas. The social frame then includes how the brain pairs that natural frame with associations and memories, fears and desires.

The focus frame refers to cerebral "binding". Every 1/40th of a second, a high-frequency gamma wave passes through our brains and consolidates all of the sensory inputs - all the sights, smells, sounds, etc. - and all of the associations that our brains have captured during a moment in time (Pinker, 1997; Blakeslee, 1998).

Electroencephalography studies tell us, "When many neurons interact in this way at the same time, this activity is strong enough to be detected even outside the brain" (Muse, 2018). Moreover, investigators have also confirmed that these brainwaves convey information. Researchers have demonstrated, ". . . the ability to nonintrusively record neural signals outside the skull and decode them into information that can be used to move a prosthetic" (Moisse, 2010).

This information in our focus frame is encoded, because our brains operate digitally, like computers. In effect, the on-off switches activated by electronic and chemical signals passing from neuron to neuron in our brains produce something like a set of "0's" and "1's."

5. The Dream Frame

"We are such stuff as dreams are made on," Shakespeare mused (1611). Indeed, much of what occurs in dreaming can give us perspective on what happens when we're awake.

In both cases - awake and asleep - we are the central characters in our narrative. But, we don't see ourselves. We don't picture ourselves in our dreams, as if we were a third person. Instead, we see the world through our eyes, just like we do in "real" life. And that world is a contrivance. That is, we aren't seeing the "natural frame." In the case of dreams, there is no natural frame before us. Instead, we are framing a composite of events, reflecting our fears and desires.

If we are capable of making composites of the real world when we're asleep, may we not be doing something similar when we're awake?

If we differentiate between the dreamer and the dream-self, what the dream-self sees, hears, and feels, is like what the dreamer sees, hears and feels. For example, if my dream-self falls off a cliff, I feel like I'm falling as well. In that regard, the dreamer and the dream-self are one in the same.

Of course, in dreams there is no actual "seeing." Our eyes are moving - especially during REM sleep (Cherry, 2021). But there is no actual scene for them to take in.

The dream, then, is a made-up story about ourselves. And it is told through feelings - through sights, sounds, and sensations. Rationally, these stories often don't make sense. But emotionally, the stories are clear.

6. The Holographic Frame

The Holographic Principle

Physicist Gerard 't Hooft, winner of the 1999 Nobel Prize in physics, conceived the theory of the Holographic Principle. That theory states that for any given region of space, the three dimensional (3D) information that exists within that region is encoded on its two-dimensional (2D) surface (Robbins, 2019; PBS, 2019; Susskind, 2019). Experimental evidence for the Holographic Principle has been reported in the literature (Chown, 2009; DeWet, 2012; Skenderis, 2017). If the theory is true, what this means is that wherever we go, we are virtually swimming in a sea of information.

't Hooft's theory is based on discoveries by Jacob Bekenstein and Stephen Hawking about Black Holes (Smolin, 2001). They concluded that none of the information that falls behind a Black Hole's Event Horizon ever disappears. To do so would violate the Second Law of Thermodynamics. Instead, all the information that passes through the Event Horizon is encoded in 2D on the Event Horizon surface.

It was 't Hooft's genius that led him to realize such a finding also applies to space in general.

The Holographic Mind

Almost a hundred years earlier, French Philosopher Henri Bergson (1896) proposed a strikingly similar theory for human perception. Based on Bergson's writings, contemporary cognitive scientist Stephen Robbins has created a series of lectures entitled *Bergson's Holographic Theory* (2016a, 2016b, 2019).

Like 't Hooft, Bergson believed that all 3D information is encoded in a 2D format throughout the Universe. The way this works is akin to how we create holograms. In ordinary holography, a set of laser beams create light waves which overlap in something called an "interference pattern." That pattern is what converts the image of a 3D object into a 2D code (Robbins, 2019). Once that 2D code is created on a surface, later on another laser beam can aim a "reconstructive wave" at the code. The ensuing laser wave decodes the information and renders a 3D image.

To Bergson, perception works in a similar way. The Universe is packed with interference patterns, formed by electro-magnetic waves emitted by objects (Bergson, 1986; Matthews, et al, 2017; Verma, 2021). Citing Faraday's "centers of force." Bergson notes:

"The lines of force emitted in every direction from every center bring to bear upon each the influence of the whole material world" (p. 31, cited in Robbins, 2016a).

Those interference patterns create 2D codes. Our brains, Bergson contends, supply the reconstructive wave. That reconstructive brain wave is "modulated" according to the "principle of action relatability." What this means, in contemporary terms, is that the focus frame in our brain sends out a wave. That wave reconstructs objects and events in terms of our particular perspective.

The resulting reconstructed image, according to Bergson and Robbins, includes all aspects of the target objects, meaning their look, sound, smell, taste, and feel (Dyslexic Artist, 2017). The end result, they claim, "IS" perception (Robbins, 2016a).

The Holographic Self

At it's core the hologram is creating something much more than our image of the outside world. It is creating a self. As I wrote in an earlier article (Levi, 2021),

"The resulting holo-frame includes not only the objects of our attention, but, significantly, *ourselves* as the subjects of that attention. In that way we experience a self. We experience a self referentially from our environment. We experience a self in terms of our action-relatability to that environment. What the hologram does is connect us to that environment through the eyes of a subject, and that subject happens to be us" (p. 249).

Consider the example of the hunter and the deer. His focus is hunting a prey. And for him the reconstructed image of the deer isn't "Bambi." For him, the reconstructed image is "target." And the ultimate meaning of that image must be that he himself is a "targetter."

Hence, the object speaks to the subject. And that's how the hunter comes to know himself. In general, how we relate to our environment tells us who we are. We might take Descartes' famous dictum, "I think, therefore I am," to mean: my perceptions of the world tell me my place in it.

The Sentient Self

In a prior article (Levi, 2020a), I distinguished between two different kinds of experience: thought and sensation. Evidence for their difference comes partly from the observation that the more of one, the less of the other. The more thinking, the less feeling. The more feeling, the less thinking.

Two different kinds of experience logically imply two different kinds of experiencer, even if both kinds reside in the same person. I referred to these two kinds of experiencer as the "thinking self" and the "sentient self."

The holographic self is the sentient self. It consists entirely of seeing, hearing, tasting, smelling, and feeling in general. These are the sensations that underlie consciousness.

Some of the contrasts between the thinking self and the holographic self-include:

a. The holographic self is older and more primitive. Dogs, for example, have a fantastic sense of smell, but probably none of them can do calculus. Frogs can reflect a large, dark, moving figure, and immediately sense "enemy image." And they have that image as a feeling, rather than an articulation.

b. The holographic image is holistic, rather than composed of parts. In that sense, it is analog versus digital. For example, you smell the perfume first, then you think about it afterwards.

c. The holographic experience is outward oriented. Thinking - cogitation - and logic seem to occur entirely inside our heads. But, for the most part, sensations originate from outside of us. The dog's smell, the frog's menace, the connoisseur's taste all emanate from something outside of them.

d. The more we put aside our thoughts, and concentrate just on the sensation, the more we seem to be captivated by the external source.

e. In such cases of external captivation, we often say that we "lose a sense of self" (Harding, 1986). But, as I noted above, the object tells us about the subject. So, what I think is happening is that we are *finding ourselves outside ourselves*. The reason the hunter may be captivated by the deer-as-target, or the racist may be captivated by his image of the "inferior" outsider is because that image reflects back on themselves and who they think they are.

f. The connection, then, between object and subject is what gives the object meaning. You don't really know what something is, until you know how it relates to you. As Bergson (1896) states, the principle of holographic modulation is "action relatability" to the subject.

g. Once the connection between the object and the subject occurs, the image becomes a "knowing image." That knowing image is a realization of self. That realization of self is consciousness.

The Realization of Self

So far, we have described a progression from natural frame, to social frame, to focus frame, to holographic frame. In this way our world comes into greater and greater focus.

The natural frame refers to raw impacts of external stimuli on the surfaces of our body. These stimuli are captured on our retinas, eardrums, nasal passages, tongues, and skin. At this stage, we are having sensations, but we don't know it yet. For example, our tongues may be capturing bitter, sweet, salty, sour, and savory, but consciousness of those tastes has yet to occur.

Next, stimuli from the natural frame are parsed in our brain and combined with associations and memories, fears and desires (Lu, et al, 2016). Through these personal linkages, the natural frame is converted into what Goffman calls a social frame. Supposedly, this process happens digitally, like the way it works in computers.

Digitized data from all areas of our brain are consolidated into a focus frame. This happens every 1/40th of a second.

Electro-magnetic waves from the focus frame reconstruct the objects and events of our attention into a holographic frame. According to the Holographic Principle, those objects are encoded in space in a 2D format. Our focus frame converts 2D codes into 3D experiences.

In effect, the digitized information in the focus frame is converted into analog sensations. Digitized images become real images. Digitized smells become real smells, and so forth.

The 2D codes are selectively reconstructed, as Bergson contends, according to the principle of "action-relatability."

So, now we have a 3D holographic frame. It consists of the look, sound, smell, taste and feel of objects and events in our immediate world (I, 2020b; Dyslexic Artist, 2017). But how do we become "conscious" of all this? How is the holistic information received?

Remember the focus frame contains digitized instructions. The instructions are to reconstruct not merely the scene before us, but, critically, *ourselves* experiencing that scene. What is depicted is the self-having an experience in which the elements of the frame are presented in terms of their action-relatability to the self.

So, unlike the raw, natural frame, the holographic frame engenders three kinds of knowing.

First, we are made aware *that* we are seeing, smelling, tasting, etc. The holographic frame transforms the natural frame, reflected on the surfaces of our body. For example, in the natural frame we may be smelling perfume, but we aren't conscious of it yet. The holographic frame makes us conscious of it by linking the raw smell to us having that smell.

Second, we know *what* it means. The hunter doesn't just see a deer, he sees a target for him to shoot at. The dog doesn't just smell drug odor, he smells something that will get him a reward once he uncovers it. So, objects and events become "known," once the observer grasps how to place them in his personal world of action.

This "knowing" need not be elaborate. For instance, when I enter a familiar room, what it tells me is: it's a place where I can do familiar things.

Third, the objects and events depicted in the holographic frame reflect back on the self and tell him what kind of person (or dog) he is. The racist, for example, encounters an "inferior" outsider, so he, by contrast, must be "superior."

The big difference between the natural frame and the holographic frame is this: the image now includes a self. Instead of a raw reflection of the scene before us, we now have a self-referential collection of objects and events. That's how we come to know them.

Ultimately, that's what consciousness is all about. It's about the realization of self. Our awareness of the world is about who we are in that world. No encounter is ever simply "raw."

Consciousness

In the end consciousness consists of three parts: the body, the holographic frame, and the self. Our bodies are impacted by stimuli, and those impacts are analog, much like the grooves on a vinyl record.

The holographic frame "interprets" those grooves. The look, sound, smell, taste, and feel of objects and events in our frame make the impacts on our bodies meaningful. So, a reflection of deer on our retinas becomes an apparition of deer as target. The resonance of sonic waves on our eardrums becomes the sound of bells summoning us to morning prayer.

The objects and events in the holographic frame derive their meaning from their relation to a self. The sight of the hunted evokes a hunter. The sound of the bells evokes one who is

summoned. The knowledge of self, that the holographic frame provides, completes the circle of awareness.

Once we relate objects and events to ourselves and our place in the world, we know them. And that knowing satisfies Goffman's essential question - "What's going on here?"

7. Conclusion

The theory of the holographic mind presented above addresses the two knotty questions of the image and the viewer, referenced in the introduction. The image is the holographic frame. The viewer is the self. Unlike the notion of an inner "homunculus," requiring an infinite regress of homunculi, however, the self-depicted in the holographic frame is different. By experiencing the world in terms of what it means to your *self* and your place in it, you achieve the state of "knowing." You have created a knowing reflection. In so doing, you have "completed the circle of awareness."

Consciousness is like a dream. Both states contain an unseen protagonist - ourselves. In both states we view the world through our eyes, even though we don't actually see ourselves. In both states we are the subjects, not the objects, of the experience. The scene that unfolds before our dreamer's eyes is a compilation of bits and pieces of our waking life that come together to form a story. That story is told primarily through sights and sounds that ultimately reflect the associations and memories, the fears and desires of the central character - the protagonist - for whom it's all about.

If that is the experience we have when we dream, why should it be surprising that we have a similar experience when we're awake? The dream frame supports the concept of the holographic frame.

Throughout the ages, people have distinguished between body and soul; matter and mind. It was thought that while the one was tangible and solid, the other was invisible and ephemeral, belonging to an entirely different class of reality.

This article, however, proposes that the elements of the conscious mind are very much part of the material world. But their ephemeral nature comes ultimately from the magic of the Holographic Principle. If that theory is correct, then we are surrounded by information. We are swimming in it. It exists in the form of 2D codes, which we and other living creatures have the unique ability to access by virtue of the focus frames formed within our brain.

Received November 8, 2021; Accepted November 30, 2021

References

- Bailey, A. (2006). Representation and a Science of Consciousness. *Journal of Consciousness Studies*. 15 July.
- Bergson, H. (1896). *Mattier et Memoire*. Transl. N.M. Paul and W.S. Palmer (*Matter and Memory*, 1990). New York: Zone Books.
- Blakeslee, S. (1998). How the Brain Might Work: A New Theory of Consciousness, (232-237). In Wade, N., (ed.), *The Science Times Book of the Brain*. New York: Lyons Press.
- Cherry, K. (2021). The 4 Stages of Sleep. Verywell Health. <u>The 4 Stages of Sleep (NREM and REM</u> <u>Sleep Cycles) (verywellhealth.com).</u>
- Chown, M. (2009). Our World May Be a Giant Hologram. *NewScientist*. Jan. 14. <u>Our world may be a giant hologram | New Scientist</u> [Accessed 3 November, 2021].
- Coates, p. and Coleman, S. (eds.) (2015). *Phenomenal Qualities: Sense, Perception, and Consciousness*. New York: Oxford University Press.
- DeWet, A. (2012). Experimental Evidence for the Holographic Principle. *ResearchGate*. Jan. (PDF) Experimental evidence for the holographic principle (researchgate.net) [Accessed 3 November, 2021].
- Dretske, F. (1995). Naturalizing the Mind. Cambridge: MIT Press.
- Dyslexic Artist. (2017). 3D Physics on a 2D boundary: the holographic principle. *YouTube*. https://www.bing.com/videos/search?q=holographic+principle&docid=608017032555139031&mid=6 2174208AF6FDAB3722E62174208AF6FDAB3722E&view=detail&FORM=VIRE [Accessed 7 October 2020].
- Goffman, E. (1959). The Presentation of Self in Everyday Life. Garden City, NY: Doubleday.
- Goffman, E. (1974). Frame Analysis: An Essay on the Organization of Experience. Cambridge: Harvard University Press.
- Harding, D. E. (1986). *On Having No Head: Zen and the Rediscovery of the Obvious*. London, England: Arkana.
- Levi, K. (2019). *Knowing: Consciousness and the Universal Mind*. Smashwords, https://Smashwords.com/books/view/956829.
- Levi, K. (2020a). Consciousness and the Duality of Self. *Journal of Consciousness Exploration and Research*, Vol. 11, Issue 7, 700-708.
- Levi, K. (2020b). The Holographic Mind. *Journal of Consciousness Exploration and Research*, Vol. 11, Issue 8, 784-795.
- Levi, K. (2021). Is It All in Your Mind? *Journal of Consciousness Exploration and Research*, Vol. 12, Issue 3, 242-251.
- Lu, C., Yang, T., Zhao, H., Zhang, M., Fancheng, M., Fu, H., Xu, H. (2016). Insular Cortex Is Critical for the Perception, Modulation, and Chronification of Pain. *Springer Neuroscience Bulletin*. April 32 (2): 191-201. <u>Insular Cortex is Critical for the Perception, Modulation, and Chronification of Pain PubMed (nih.gov)</u> [Accessed 13 May, 2021].
- Matthews, E., Sandy, N. Michael Faraday's "Lines of Force" and the Role of Heuristic Models in Early Electromagnetic Field Theory (2017). *Senior Projects Spring 2017*. 278. https://digitalcommons.bard.edu/senproj_s2017/278 [Accessed 29 October 2020].

- Moisse, K. (2010). No Implants Needed: Movement Generating Brain Waves Detected and Decoded Outside the Head. Scientific American. March 2. No Implants Needed: Movement-Generating Brain Waves Detected and Decoded Outside the Head - Scientific American [Accessed 9 November, 2021].
- Muse. (2018). A Deep Dive into Brainwaves: Brainwave Frequencies Explained. *Muse*. <u>A Deep Dive Into</u> Brainwaves: Brainwave Frequencies Explained (choosemuse.com) [Accessed 6 November 2021].
- PBS Spacetime. (2019). The Holographic Universe Explained, Part 39. *YouTube*, April 10. https://www.youtube.com/watch?v=klpDHn8viX8&t=74s [Accessed 7 October 2020].
- Pinker, S. (1997). How the Mind Works. New York: W.W. Norton and Co.
- Pribram, K.H. (1971). *Languages of the Brain: Experimental Paradoxes and Principles in Neuropsychology*. Prentice Hall/Brandon House, N.Y.
- Robbins, S. (2016a). Bergson and the Holographic Theory of Mind, Part 1. *YouTube*, Dec. 27. <u>https://www.youtube.com/watch?v=RtuxTXEhj3A</u> [Accessed 9 October 2020].
- Robbins, S. (2016b). Bergson and the Holographic Theory of Mind, Part 3. *YouTube*, Dec. 27. <u>https://www.youtube.com/watch?v=RtuxTXEhj3A</u> [Accessed 11 October 2020].
- Robbins, S. (2019). Bergson and the Holographic Theory of Mind, Part 39. *YouTube*, May 30. <u>https://www.youtube.com/watch?v=RtuxTXEhj3A</u> [Accessed 7 October 2020].
- Shakespeare, W. (1611). *The Tempest*. Reprinted in *The Comedies of Shakespeare, pp. 1-63*. New York: Random House.
- Skenderis, K. (2017). Study Reveals Substantial Evidence of Holographic Universe. University of Southampton. Jan. 13. <u>Study reveals substantial evidence of holographic universe | University of</u> <u>Southampton [Accessed 3 November 2021]</u>.
- Smolin, L. (2001). Three Roads to Quantum Gravity. New York: Basic Books.
- Susskind, L. (2019). Black Holes and the Holographic Principle. YouTube. Feb. 1.
- Tye, M. (2000). Consciousness, Color, and Content. Cambridge: MIT Press.
- Tye, M. (2021). Qualia. The Stanford Encyclopedia of Philosophy. <u>Qualia (Stanford Encyclopedia of Philosophy)</u>.
- Verma, S. (2020). Putting Electronics of Brain Waves to Use. Electronicsforu.com. <u>Putting Electronics Of</u> <u>Brain Waves To Use | Must Read (electronicsforu.com)</u> [Accessed Nov. 1, 2021].