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# BETWEEN MYSTICISM AND MEDICAL MATERIALISM: RELEVANCE OF WILLIAM JAMES AND JOHN DEWEY FOR THE QUESTION OF NEUROTHEOLOGY

*Jonathan Weidenbaum, Ph.D*

## 1. Introduction: The Brain and the Void

At the end of *Island*, Aldous Huxley's answer to his earlier dystopian masterpiece *Brave New World*, a man swallows a pill and experiences enlightenment. Stumbling upon the tiny civilization by way of shipwreck, our hero, a cynical and dissatisfied journalist from the West, is introduced to a unique fusion of mysticism and communal experiment. This is *Pala*: a culture as devoted to self-knowledge and spiritual awakening as the bleak of world of *Brave New World* is to behavioral conditioning and chemically-induced complacency. While both societies employ drugs as part of a more general quest to re-shape human nature, the pill ingested by the protagonist of *Island* is the "moksha-medicine" - a pharmaceutical designed to stimulate the kind of ecstatic perceptions testified by contemplatives East and West. The pill is a concoction of the art called *neurotheology*, a discipline which, as we learn midway through the novel, "thinks about people in terms, simultaneously, of the Clear Light of the Void and the vegetative nervous system."<sup>1</sup> Here is the marriage of Buddhism with brain-science.

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<sup>1</sup> *Island*, 112.

Huxley is repeatedly lauded for his prescience, and most often for the developments he disliked. It is for this reason that he probably would have found relief the growth of at least one thing he advocated—namely the use of empirical means to probe the origins of religious experience. Like the fictional country of Pala from where it was born, the field of neurotheology appears as a most curious juxtaposition of old and new: Red-robed *Vajrayana* monks meditate with wires glued to their scalp; Carmelite nuns sit peacefully in soundproof rooms; aspiring prophets wear a “God-helmet” and receive electrical stimulation through their temporal lobe.

Neurotheology, broadly conceived, is the art of exploring the correlations between religious/mystical experiences and the nervous system. The discipline contains two approaches which, though distinct in principle, are found side-by-side in almost every major work of neurotheology. First, there is the innocuous task of simply investigating what *happens* in our brain when we undergo meditative and rapturous states of consciousness. And second, there is the attempt to actually *identify* some part of the brain as the defining core and origin of mystical and religious experience.<sup>2</sup>

But can religious and mystical experiences be understood as products of the nervous system? None of the major world religions consider the most exalted states of consciousness to be mere events within our brain chemistry. Zen Buddhists envision *satori* as the direct grasp of the *Sunyata*, the inherently empty and interconnected character of all things. Sufi dervishes and Hasidic Jews seek to become one with God. Even Huxley was occasionally reticent to identify spirituality with the brain. It should be remembered that the author of *Island* also wrote *The Perennial Philosophy*, one of the loveliest anthologies of the contemplative life.

Huxley was certainly not the first to stimulate the nervous system in order to explore the nature of religious experience. More than seventy years before the publication of *The Doors of Perception*, William James used nitrous oxide to replicate the experiences of the mystic (as well as to understand the philosophy of Hegel!). As a pioneer of both the biological understanding of the mind as well as the scientific study of spiritual states of consciousness, it could be claimed that James paved the way for neurotheology long before Huxley coined the name of the discipline. Of course, it should be noted that James argued for the possibility of human immortality, the complete irreducibility of our spiritual life to bodily states, the importance of studying the psychical and the paranormal, and a finite and supernatural god who enters directly into the life of the individual. If James is to be included among the neurotheologists, he is a most unorthodox one, and stands in sharp contrast to those who would identify religious experience with the brain in any way.

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<sup>2</sup> Or, in the case of Newberg and Waldman, more than one God-part of the brain.

In his little book on religion, John Dewey, William James's countryman and fellow pragmatist, states: "He is bold to the point of rashness who asserts that intimate personal experience will never come within the ken of natural knowledge."<sup>3</sup> Espousing a thorough, if non-reductionist, naturalism, Dewey may seem aligned with the more hard-headed tendencies in neurotheism. But "natural knowledge" for Dewey means doing justice to the full-blooded texture of our experiential life; and here is where much neurotheology falls short for a Deweyan perspective, as we will discover below.

The pages which follow examine the relevance of William James and John Dewey for the current vogue of neurotheology. The importance of the two classical American philosophers is found primarily in their overturning of conventional assumptions about the relationship of the brain, mind, and external world—assumptions still prevalent among many neurotheologians. The upshot is that a human being is not a vegetative nervous system on the one hand and the Clear Light of the Void on the other. There are other elements involved in the constitution of spiritual meaning—the overlooking of which serves as the greatest hindrance to a proper account of the origin and structure of a religious experience.

It should be noted that it is not my goal to exhaust the contributions of James and Dewey for an understanding of either religion or the religious experience (for which whole books have been written), but only to discuss their immediate relevance for the field of neurotheology. Nor do I seek to offer a sweeping criticism of neuroscience, since many contemporary neuroscientists—particularly the non-reductionist sort—would likely endorse this critique.

In *Art as Experience*, Dewey asserts that "there is no test that so surely reveals the one-sidedness of a philosophy as its treatment of art and esthetic experience." If *art* and *esthetic* are here replaced with *religion* and *religiousness*, therein, in the resulting statement, would be found the larger purpose of this study. Mining and unpacking the still-overlooked contributions of William James and John Dewey on this topic is a first step in the right direction.

## 2. Meaning and Experience

Perusing through some of the key works in neurotheology, one finds a remarkably similar account of the manner in which experience constructed. In *The "God" Part of the Brain*, Matthew Alper provides a description of what occurs when we perceive an apple:

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<sup>3</sup> A *Common Faith*, 35.

First, photons of light which are reflected off an apple are picked up by our retinas, which convert that information into electrical signals that are then processed by our brain. Consequently, all that we perceive as “real” is nothing more than electrical signals as they are interpreted by our organ, the brain. When we eat an apple, we “feel” its texture; we “smell” its aroma; we “taste” its flavor. Not until we integrate all of these various sense-impressions is our experience transformed into a coherent perception of the apple as a whole. Without such an internal processor through which to coordinate this medley of sense-impressions we constantly receive, it would be impossible for us to make sense of our experiences.<sup>4</sup>

This model of experience leads to questions which have dogged philosophy since the Ancient Greeks. They include the following: How can we know that the world fabricated by our brain matches up to that of the “real” or external world? What, for instance, is the status of *causality*, the operations of cause-and-effect we perceive in nature and which serve as the basis of the sciences? Are they simply based upon our previous experiences, mere habits of association (the theory of the classical empiricists)? If so, how can we be assured these same laws will continue in the future? Perhaps they are the built-in structures of our mind (the position of the rationalists).

It is relevant to note that traditional rationalists and empiricists (usually understood as antagonists) share a similar premise both with themselves and with our neurotheologians. It is this: Meaning is not found directly within experience at all. Rather some external source—habits formed by our prior experience, transcendental structures of the mind, or (and more currently) neural processes found within the brain—slaps meaning onto our experiences, and thereby structures them into coherent and consistent wholes. Neurotheologians offer a similar account of spiritual and religious experience. If the brain and nervous system constitutes reality, then to alter the nervous system is to alter reality, plain and simple. “The medieval German mystic Meister Eckhart lived hundreds of years before the science of neurology was born,” explains Newberg, D’Aquili, and Rause, “yet it seems he had intuitively grasped one of the fundamental principles of the discipline: What we think of as reality is only a rendition of reality that is created by the brain.”<sup>5</sup> A fourteenth century monk is hereby converted into the forerunner of a subject-centered idealism combined with modern biology.

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<sup>4</sup> *The “God” Part of the Brain*, 17.

<sup>5</sup> *Why God Won’t Go Away*, 35.

It is anachronistic and dishonest, however, to graft a post-Cartesian worldview onto the claims of individuals and movements from another era, whether Asian or Occidental. It also results in a terribly shallow depiction of the kinds of experiences that the great mystics of the world were trying to promote. Consider the Japanese tea ceremony. The whisking of the bowl, the smoke rising gently out of the earthenware pottery, the positions in which the participants are seated, the near-choreographed motions through which the host slowly passes the tea to his or her guests: All of these elements, taken together, are understood and felt as *immediate* expressions of the Buddha-nature. To suggest that they are ancient techniques designed to tweak specific portions of the nervous system, and thereby induce a spiritual consciousness, is to split the meaning from the medium. The result is a ceremony that becomes impossible to understand. Why, for instance, *this* particular movement, *this* style of cup, *this* décor for the tea-house, *this* batch of flowers on the wall? Try answering these questions strictly through the language of neural and physiological processes—which taken alone, and without regard to any larger context, can only be blind and indifferent to these details. Anyone with a capacity for true religious and aesthetic perception sees that in regards to the tea ceremony, the experience in question already arrives replete with meaning; the latter is not added from the outside.

Both the age-old problems of epistemology and the artificial accounts of experience are products of the Cartesian legacy in our understanding of perception. Here, a first-person and *phenomenological* report (“I see a red chair”) is combined with a purely *physical* description of the experienced environment (“waves of light make their way onto the retina of the eyes...”). Now, while physical processes underpin and serve as conditions for our perceptions of the world, they are not the stuff of our experience. Certainly, patterns of light can be found on the retina of my eye. However, I neither see, nor ordinarily care about, the retina of my eye. I do not first receive visual representations which I *then* have to construct into objects. Rather I see a plush chair, a lovely and comfortable looking piece of furniture that I would like to sit on. The chair in fact, seems to call for my tired body, since I’ve been on my feet all day long. According to a discipline known as “ecological psychology,” the chair *affords* me rest, and this is a quality I see directly in the chair. For ecological psychologists, our behavior is *entirely* indecipherable if our surroundings are understood solely in the language of physics, chemistry, and neuroscience. My true environment is the one I take notice of and interact with, and it is composed of things relevant to my purposes and interests. To mix layers of explanation, the felt experience on the one hand and the underlying material substratum on the other, is to invite confusion, something all-to-common in modern accounts of experience and cognition.

The act of reading the physiological conditions for perception into our actual experience of the world is a chief example of what James dubs as “the psychologist’s fallacy.” “The great snare of the psychologist,” he explains in *The Principles of Psychology*, is the confusion of his own standpoint with that of the mental fact about which he is making his report.”<sup>6</sup> It is therefore no surprise that in *Ecological psychology in Context*, Harry Heft deftly traces the work of James J. Gibson, the founder of ecological psychology, to the later work of William James.

James’s “radical empiricism,” ancestor of both phenomenology and ecological psychology, is first and foremost a kind of program. Throwing aside all of our prejudices and assumptions concerning experience, we attend to it rather closely, rejecting nothing we see in it and placing nothing inside it we don’t. The result is James’s novel concept of “pure experience,” the idea that experience is the sole (if complex and heterogeneous) reality from which subject and object, mind and world are but expressions. Consciousness is not something or substance which exists in its own right, but is a mere function within experience. The sensory atomism of the British Empiricists, the splicing of our perception into discrete bits requiring some kind of glue to connect them, is entirely rejected. In fact, the connections and relations between things are found directly within the texture of experience. Finally, in experience as we actually live it—or more accurately, as we and the “external” world are lived out of it—there is no division between value and fact, “ought” and “is.”

In his surmounting of all dualisms and his depiction of experience as a meaningful totality, James was a tremendous influence on John Dewey. From his early essay “The Reflex Arc Concept in Psychology” to his later books, Dewey would detail a notion of experience as the mutually constitutive relationship between sentient beings and the surroundings through which they exist. “Life denotes a function, a comprehensive activity,” he explains in *Experience and Nature*, “in which organism and environment are included. Only upon reflective analysis does it break up into external conditions—air breathed, food taken, ground walked upon—and internal structures—lung respiring, stomach ingesting, legs walking.”<sup>7</sup> As with Gibson and the ecological psychologists, Dewey does not so much ignore the physiological processes involved in our acts of cognition and perception as make them subservient to the continual adjustment between a living agent and an external world.

Dewey holds that the *felt* character of experience needs to be apprehended on its own terms. Throughout many of his writings, the consequence is nothing less than

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<sup>6</sup> Volume I, 196. Italics are in the original.

<sup>7</sup> *Ibid.*, 9.

what James called “a thick universe;” one in which time and space are innately significant and not empty Cartesian coordinates, qualities belong as much to things as to the “inner” life of human beings, and experience is of actual objects and not mental *representations* of objects. For both James and Dewey, meaning is not an addition to experience from elsewhere. Situated against the context of their ideas, the calm gestures of the participants in a tea ceremony can be understood as *inherently* meaningful.

### 3. James, Mysticism and Medical Materialism

While a number of James’s writings have pertinence for the relationship between mystical experiences and the brain, it is the chapter on “Religion and Neurology” from *The Varieties of Religious Experience* in which he comes closest to tackling a doctrine resembling the more reductionistic of today’s neurotheology. Labeled by James as *medical materialism*, this is the view that religious experiences are dismissible as mere products of our body and nervous system. James’s rebuttal goes as follows: Unless it can be demonstrated beforehand that *only* religious experiences are so reducible, and not scientific and skeptical modes of perception as well, then the position of medical materialism is arbitrary—the result of prejudice rather than impartial observation. On the other hand, if *all* kinds of consciousness are deemed as the consequence of bodily states, and therefore without some connection to extra-psychical facts, then the conclusions of the medical materialists must be equally suspect. James concludes that we have little choice but to evaluate religious and mystical intuitions with the same criteria as with any other experience: “immediate luminousness,” “philosophical reasonableness,” and “moral helpfulness.”<sup>8</sup>

Of course, it is always possible that an experience is a product of the nervous system and yet also related to facts beyond the confines of the skull. In holding this position, many neurotheologians would not only fail to recognize themselves in medical materialism, but would even be relieved to see that I am employing the arguments of James to fight a straw man. Newberg, D’Avuili, and Rause argue for the possible veridicality of mystical experience, and even provide an argument against dismissing religious states of mind roughly similar to James.<sup>9</sup> Nevertheless,

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<sup>8</sup> See *The Varieties of Religious Experience*, 29-32.

<sup>9</sup> In chapter eight of *Why God Won’t Go Away*, the authors state: “If you were to dismiss spiritual experiences as “mere” neurological activities, you would also have to distrust all of your brain’s perceptions of the material world. On the other hand, if we do trust our perceptions of the physical world, we have no rational reason to declare that spiritual experience is a fiction that is ‘only’ in the mind.”

the same authors go on to claim that the only place God “can manifest his existence would be in the tangled neural pathways and physiological structures of the brain.”<sup>10</sup> And here, even the most open-minded of neurotheologians impale themselves on yet another dilemma. It is this: The extent to which our cognitive states involve a reality beyond the confines of the nervous system, the less defining brain activities are for such experiences; and the larger the role of the nervous system is in creating the meaning and “flavor” of our experiences, the more we collapse into all of the epistemological problems pointed out in the previous section. In arguing that our perceptions of the world provide us “secondhand neurological perceptions” only, images to be assembled by the brain, Newberg, D’Aquili and Rause affirm that even science is a kind of mythology.<sup>11</sup> If so, why trust the careful findings of the neurotheologian over the ranting of the fundamentalist? The latter would spare us the cost of EEG machines.

In basing religious experiences within the brain, neurotheologians fall into the same subject/object dualism which has befuddled philosophers for centuries. This is a particular irony for those who equate genuine religious experience with the dissolving of all such dualisms, including that between the inner self and the Absolute as championed by the authors of *Why God Won’t Go Away*.<sup>12</sup> Once again, neurotheology violates the very experiences they seek to explain. The *Upanishads* speaks of the identification of the soul with the Ultimate Reality—atman with *Brahman*—and not the mere *feeling* or replica of such a relationship.

In his essay on human immortality, James agrees that thought is a function of the brain. But James here opposes a *transmissive* to a *productive* function, and offers the possibility that the cerebral cortex serves as a conduit through which a wider consciousness is narrowed into our practical, day-to-day awareness.<sup>13</sup> This is similar to Huxley’s perspective in both *The Doors of Perception* and *Island*. Dr. Robert MacPhail, grandson of Pala’s founder (and one of Huxley’s many philosophical voices in the novel), explains that “the *moksha*-medicine does something to the silent areas of the brain which opens some kind of neurological sluice and so allows a larger volume of Mind with a large ‘M’ to flow into your mind with a small ‘m.’”<sup>14</sup> Like a light shining through stained glass (James’s analogy), there is no difference in principle between the divine ground of consciousness and ourselves, one is in fact a segment of the other.

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<sup>10</sup> Ibid, 53.

<sup>11</sup> See chapter nine of *Why God Won’t Go Away*.

<sup>12</sup> Ibid, 101.

<sup>13</sup> *Human Immortality; Two Supposed Objections to the Doctrine*.

<sup>14</sup> *Island*, 168. Also see *The Doors of Perception*, 21.



For neurotheologians, the brain remains the seat of mystical experience, even if the sacred exists. For James (and Huxley), religious ecstasy is quite literally the return of our essential being to its source like a spark into a bonfire; the flight, as described by Plotinus, of the “solitary to the solitary.”<sup>15</sup>

## 4. Dewey, Religion and Reification

In recounting a true story of James and Dewey sitting at a Ouija board in 1905, Richard Gale imagines “a big smirk” on Dewey’s face, while “the sweat of earnest conviction was pouring off James’s.”<sup>16</sup> Dewey is a thorough naturalist for whom the objects of religious and aesthetic veneration do not descend from the heavens, but are woven out of the fabric of our concrete experience. *A Common Faith* and *Art as Experience*, both published in the same year, discuss the manner in which our heightened perceptions of the world are projected outward into separately existing things, the material of the fine arts and the supernatural respectively.

“There is no reason for denying the existence of experiences that are called mystical,” affirms Dewey in *A Common Faith*, for “there is every reason to suppose that, in some degree of intensity, they occur so frequently that they may be regarded as normal manifestations that take place at certain rhythmic points in the movement of experience.”<sup>17</sup> The idea of experience possessing rhythmic points is central to Dewey’s phenomenology, since mind is the result of an embodied and environmentally embedded organism; a “live creature” alternatively falling out of, and then back into, harmony with its external surroundings.<sup>18</sup> It is precisely this dynamic character of experience which informs the nature of meaning: “We envisage with pleasure Nirvana and a uniform heavenly bliss only because they are projected upon the background of our present world of stress and conflict.”<sup>19</sup>

Mystical states of consciousness, as with aesthetic ones, are ecstatic partly because they are an intensification of the rich contrasts already found within any truly fulfilling experience—what Dewey calls “having an experience.”<sup>20</sup> Consider the very language of religious and spiritual intuition: There is a movement from *darkness* to

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<sup>15</sup> This is the last line of the *Enneads*.

<sup>16</sup> From his appendix to *The Divided Self of William James*.

<sup>17</sup> *A Common Faith*, 37.

<sup>18</sup> The notion of a “live creature” is borrowed from *Art as Experience*.

<sup>19</sup> *Art as Experience*, 15.

<sup>20</sup> See his famous third chapter from *Art as Experience*.

light, from being *lost* to being *found*, from *confinement* to *liberation*. Now, neurons, taken in isolation, can know nothing of these contrasts. Self-transcendence is not significant by itself, but only as a release from the labors and exigencies of our day-to-day existence.<sup>21</sup> What possible relevance can confinement followed by a sudden freedom have for a nervous system floating in a vacuum? It is the entire, purposeful organism which feels suffocated and pines for liberty. Aesthetic and religious meaning is possible only for a nervous system *in a body*, and “not as marbles in a box but as events are in history, in a moving, growing never finished process.”<sup>22</sup> Thus, neurotheology can never, in principle, elucidate the character of religious experience. At best, it can examine one of its underlying conditions.

It is worthwhile to examine this argument against neurotheology from another angle. According to the great bulk of neurotheologians, spiritual experience is a product of the brain. Now, either the brain is the seat of meaning or it is not. If the brain is the origin of all significance, and operates upon purely neutral and meaningless sense experiences, then we are left with the question of how the movement from, say, defilement to purity is felt as meaningful. How can the brain, by itself, know the significance of such a contrast? If the answer is “from the senses,” then the nervous system is not the seat of all meaning after all, since what the senses present us is already loaded with significance. In that case, neurotheologians are preoccupying themselves with only a small (if necessary) part of the story.

Some neurotheologians contend that evolution has implanted such meanings already within the brain.<sup>23</sup> In this case, the various artistic expressions and rituals found among the world’s religions, from the whirling of a Sufi dervish to the Stations of the Cross adorning the wall of a cathedral, are constructed to “turn on” these inner capacities of our nervous system like an operator on a switchboard. But this permits, as I have pointed out earlier, a most artificial understanding of the means by which these forms of art influence the experiences of a believer. The landscape painters of Asia do not intend to alter something inside of our brain. Rather, the *tathata* or “suchness” of things is already present in the lines and contours of the painting, and the artist simply wants us to open our eyes and see.

One of Dewey’s core arguments in *A Common Faith* is that the heightened aspects of our experience are regularly interpreted as independent realities; they are

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<sup>21</sup> *Ibid.*, 21.

<sup>22</sup> *Experience and Nature*, 295.

<sup>23</sup> Matthew Alper and Michael Persinger offer this kind of explanation. See *The God Gene* and the *Neuropsychological Bases of God Beliefs* respectively.

hypostatized “into a supernatural realm for safe-keeping and sanction.”<sup>24</sup> There are many consequences of this act of reification. Experiences available for all human beings are not only placed in the possession of a clerical and societal elite, they are used to divert energy away from solving social and political problems and toward the worship of imaginary entities and beings. “Men have never fully used the powers they possess to advance the good in life,” Dewey explains, “because they have waited upon some power external to themselves and to nature to do the work they are responsible for doing.”<sup>25</sup> Although Dewey does find a place for the word “God” in *A Common Faith*, it is used by him to label the continual uniting of our imagined ideals with concrete actuality, possibility with fact. We are thus reminded that human agency does not occur in a vacuum, and that even our loftiest efforts for the good involve a taking up of what our situation provides.<sup>26</sup>

Many neurotheologians share a similar goal with Dewey. In *The Mystical Brain*, Michael Persinger asks us to envision the possibility of making mystical perceptions available without the dogmas of organized religion. Some argue that neurotheology will finally democratize spirituality by taking the religious experience out of the jurisdiction of theologians and church doctors, secret rites and esoteric texts. The problem is that neurotheologians are an elite themselves, with not only an intimate knowledge of the neural pathways of the cerebral cortex which most of us don’t have, but with expensive and state-of-the-art machinery that no average person can afford. Of course, *Moksha*-medicines and God-helmets can become widely available in the same way as cars and dishwashers. But once again a new clerical elite comes into being, for manufacturers will not only be needed to continually create such technologies, but to either sell them for profit or disseminate them in the manner of a priest handing out wine and wafers at a Catholic mass. One need not strain to imagine an unscrupulous demagogue or future technocracy exploiting such *Moksha*-medicines, for Huxley has conveniently done it for us in *Brave New World*.

## 5. Conclusion: Neurotheology as Theology

Perhaps the process of reification, as pointed out by Dewey, can actually illuminate a few things about the unstated goals of neurotheology. It is conceivable that neurotheologians engage in their own form of hypostatization, and seek a “god-gene” or god part of the brain for a variety of personal reasons. Those neurotheologians sympathetic to religious belief and practice are thus able to fix a

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<sup>24</sup> *A Common Faith*, 73.

<sup>25</sup> *Ibid*, 46.

<sup>26</sup> *Ibid*, 51-4.

distinguishable form for their spiritual needs and even locate verifiable evidence for their faith; while those against religion can identify the great devil sitting behind the collective misery of humankind. In both cases, there is a kind of transcendentalism at work in the project of neurotheology, a condensing and shelving of the most intense elements of our experiences into a place beyond the reach of our everyday life. In this way, neurotheology is theology (or demonology) after all.

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