

# Serpent mythology and oxytocin; Psora unmasked

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## Abstract

All cultures have a creation myth associated with a serpentine figure venerated as the repository of intuition, intelligence, wisdom, spiritual knowledge and immortality. In that regard it is intriguing that the hormone oxytocin, which apart from providing a means for the body to maintain homeostasis (and also underpins reproduction, the universal drive which forms the basis for the Theory of Evolution and the concept of survival of the fittest), is in the shape of a serpent. Is there a connection?

## Keywords

Serpent; Ouroboros; oxytocin; primal period; Genesis 3:15; mother; birth; milk; Lac Humanum; DNA; Maslow; Erikson; Psora; Sycosis; Luesis; self-realisation; reincarnation.

## The Serpent in human consciousness

We know, from anthropological studies, that the serpent is associated with most cultures. Traditionally it symbolises fertility and procreation, wisdom and healing; and, due to the fact that it sheds its skin, death and resurrection. Artefacts depicting the serpent have been unearthed in Mayan and Aztec sites and serpent beings such as Quetzalcoatl, the feathered serpent God (who was sometimes depicted as a serpent devouring its own tail), was worshipped in North America along with similar images named Cihuacohuatzi and Cihuacohuatl in Mexico and Peru. Greek creation myths speak of Ophion the snake which incubated the primordial egg from which all created things were born; and, in Chinese mythology, it was Fu Xi and Nu Wa who were the intertwined male and female serpent beings, representing the Earth and Heaven, who united to create humans (interestingly) from clay.

The Sumerian God, Ningizidda, was depicted as the double headed snake coiled into a double helix. This is, perhaps, an early representation of our DNA, and, perhaps it's origins, but may also highlight the notion of duality in Nature; a concept which can be linked to the idea of Volition and Two Wills which is a theme well represented in the Lacs ("our most important medicines" [Kent]) as a kingdom. Some theorists believe that Ningizidda was the mythical Thoth who established the early mystery schools in Egypt where individuals seeking "knowledge" (Enlightenment) came to be initiated. It is beliefs such as these that underpin the wisdom aspect of serpent mythology, and are, perhaps, associated with the "Fall of Eve" as depicted in Genesis. However, I think it is important at the outset, that we ask...just what exactly was the nature of the "knowledge" that the serpent was keen to share with Eve? And why is it that Michelangelo, in his depiction of this event on the ceiling of the Sistine Chapel, chose to depict the serpent/Satan in female form?

Intuition, intelligence and wisdom are all attributes of the snake in the Chinese zodiac. However, in Chinese culture, it is specifically, the dragon which is the repository of Wisdom and Beneficence; and, it is because the Emperor was believed to have dragon blood in his veins, that led to various imperial dragon accoutrements and the dragon's pivotal place in Chinese culture still to this day. With respect to the broadest ramifications of this discussion, it is, therefore, of particular interest to note that the word "dragon" comes into our lexicon via the Greek "*drakon*", which means "serpent"; and, even more interesting is the fact that the Hebrew equivalent is "*nahash*" which is understood to be derived from the Semitic consonant stem "NHSH", which means "to decipher" or "find out"!

African, Australian, Pacific island and Indian creation myths all describe a serpent working with Mother Earth in order to give rise to all aspects of Nature; and the classical symbol of the Ouroboros, which is found in some form in many cultures and is integral to many creation myths, depicts a snake in the act of eating its own tail. The term Ouroboros is derived from two words in ancient Greek; with the first word "*oura*" meaning "the tail" and the second word "*boros*" meaning "eating".

As a symbol, it has many interpretations. One of the earliest, and found in several cultures, is that the snake circles the earth to keep it together. Another is of the snake representing the cyclical nature of life and death; Life feeding on itself in the act of creation, as witnessed in the cycles of day and night and Spring and Summer (the fecund seasons) and Autumn and Winter (the dormant seasons). Another is that of immortality, as a spiral is associated in many cultures with the notion of "eternity". This perspective accords with that of Plato, who considered the universe to be an immortal, mythologically-constructed entity, and described the Ouroboros as the first living thing; a self-eating, circular being; bringing order from chaos. All this begs these questions: does eternity necessarily equate with immortality (ascension) or does it imply the keeping-on aspect of reincarnation? And, what exactly, does the serpent have to do with it?

When it was first used around 1600 BC by the Egyptians, the Ouroboros was considered as the symbol of the sun and it was believed to have represented Aten's travels (Aten is the sun disk in the Egyptian mythology). However, the first known appearance of the Ouroboros motif as we know it is in *The Enigmatic Book of the Netherworld*, an intriguing ancient Egyptian funerary text in KV62, the tomb of Tutankhamun from the 14th century BC. The text concerns the actions of Ra and his union with Osiris in the Underworld. In an illustration from this text, two serpents, holding their tails in their mouths, coil around the head and feet of an enormous god, who is thought to represent the unified Ra-Osiris, and the beginning and the end of time. Through their relations with Phoenicians the Egyptians then passed it on to the Phoenician culture and it was subsequently passed on to the culture of the Ancient Greeks, who named the infinity symbol in their language as it is used in the present day.

Ancient alchemists used the Ouroboros symbol as a representation of the element mercury, referred to by them as Prima Materia (first matter), the starting material for the alchemic Magnum Opus and the creation of the Philosopher's Stone which was believed to have the power to turn base metals into gold. That is why I refer to human milk as "the white gold of the alchemist" as it works on Prima Materia (the newborn) and facilitates optimisation of all physical and neurologic systems in the body; that is, it maximises the potential referred to in §9.

In the Middle East, the god Mithra, who was believed to be reborn, was sometimes depicted with an Ouroboros around his waist or encircling his whole body. In Norse mythology, the Ouroboros appears as the serpent Jörmungandr, one of the three children of Loki and Angrboda, which grew so large that it could encircle the world and grasp its tail in its teeth. And, in ancient India, the Ouroboros symbol has been used to describe the kundalini energy, and is depicted usually as an animal halo often in the form of a snake or lizard god or goddess. Shiva, who represents the duality of creation and destruction and thus the birth of life through opposites, is often represented within a circle. The circle, in this instance, is a symbol of the circular nature of the universe and time: death-rebirth; creation-destruction; love-hate, Spring/Summer-Autumn/Winter; the eternal dance of the cosmos.

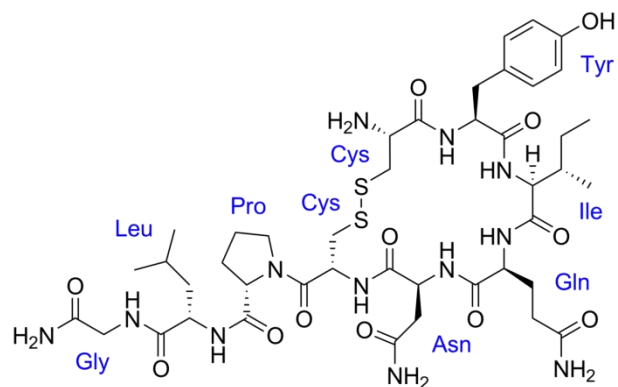
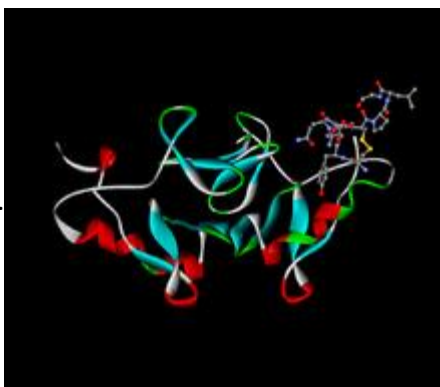
So, we encounter the serpent and the Ouroboros in almost every ancient culture. And the almost universal thread of creation myths with a saurian theme is, no doubt, an incontrovertible reminder of our reptilian origins. Before Man entered the evolutionary picture, the planet belonged to reptiles. And, that we are linked along the evolutionary timeline, is evidenced in the prevailing anatomical feature of the reptilian brain stem which governs our instinctive behaviours associated with fight/flight which locks us into survival mode; that is, in the bottom of Maslow's Hierarchy.

Interestingly, it has been suggested that the Milky Way itself was the source of inspiration for this version of the infinity symbol, as one of the myths regarding the Ouroboros tells us about a serpent of light that lives in the Heaven and the Milky Way galaxy, which has the shape of a circle, was considered to be this serpent. Ironically, “*gala*” is the Greek word for milk; and, in dream symbology, “milk” signifies success, the gaining of spiritual knowledge or immortality as attained through ascension. So, this purported connection of the Ouroboros to the Milky Way gives us a possible perspective regarding the thread of the serpent/spiritual knowledge myths. However, it leaves me wondering about the exact meaning of the immortality association that is enjoyed by the serpent, as it’s a mythological understanding that one needed to be suckled by Hera to obtain immortality. That is to “consort with Gods”. It is said that when she was disturbed when Zeus plotted to have her inadvertently suckle Hercules during her sleep, her letdown sprayed across the Firmament giving rise to the Milky Way... the Galaxy of Stars.

As Above; So Below. That is why we have dreams of associating with important people (royalty; movie stars; politicians) in *Lac Humanum*; highlighted in Sankaran’s proving which records a dream of the prover climbing a flight of stairs to have two doors flung open to be received by two gods. We need, therefore, to be open to the idea that it’s a mother’s milk which provides the key to that door and acknowledge that this form of nourishment is unavailable to a reptile; and that we, according to Carl Sagan, are the “stuff” of stars.

### So, what has this got to do with oxytocin?

Well, for a start, it is oxytocin which governs the letdown reflex which delivers milk from the maternal breast during suckling as a consequence of a hormonally-driven (Ouroboros-like) feedback loop. Additionally, (and for some it’ll be interpreted as having drawn a long bow), I was more than intrigued while doing some research on oxytocin to notice that the shape of the molecule is quite serpent-like in its configuration; perhaps a bit like a cobra. Furthermore, an image in Wikipedia Commons of the molecule bound to its ribbon-like carrier protein neurophysin transported me straight to Chinese New Year celebrations with its central focus on the ceremonial dragon.



And so, it has struck me that since oxytocin maintains homeostasis in the body and plays a pivotal role in reproduction (it is popularly called “the hormone of love”) and, as a neuro-peptide, is the primary mediator for transforming the epigenetic experiences associated with breastfeeding and being well-mothered into permanent changes in the anatomy and physiology of the developing brain and central nervous system (CNS), (*which, by the way, may be transmitted to future generations*<sup>1;2</sup> so underpins the concept of Evolution), and the serpent is integral to every creation myth on the planet, there is possibly more to this than accidental happenstance!

## What is oxytocin?

Oxytocin, a polypeptide hormone, was discovered in 1909 by Sir Henry Dale when he noted that an extract from the pituitary dorsal lobe caused contractions of the uterus in pregnant cats. A few years later he discovered that it, similarly, caused the alveoli in the breast to contract, thereby triggering the milk ejection reflex. We now know that it is mainly formed in two large groups of nerve cells in the brain, called the supraoptic and paraventricular nuclei - both located in the hypothalamus. It can travel in the blood, where it acts as a hormone or, via the nerves, where it acts as a neurotransmitter. It is also known to affect other nerve cells by diffusion, so has a paracrine effect<sup>3</sup>. Interestingly, recent research indicates that a precursor called nematocin, which underpins gustatory plasticity and mating behaviour, has existed in nematodes (which, although tiny, are snake-like in configuration) since before the rise of vertebrates,<sup>4</sup> so it seems to be a factor associated with reproduction, and therefore Evolution, from the earliest of times.

## And what exactly is its role?

All mammals require oxytocin for all aspects of sexual maturation, courtship, pair-bonding, pregnancy, birth and breastfeeding; and research<sup>5-8</sup> shows that oxytocin induces not only maternal behaviours such as breastfeeding and bonding, but also trust, cognition, social behaviour and positive emotions. These higher order brain functions are only found in mammals and they allow humans, who enjoy primary position in the mammalian kingdom, to step beyond the lower rungs of Maslow's Hierarchy and strive to ultimately attain self-realisation (a quest so beautifully expressed in *The Organon* by Hahnemann in §9).

Additionally, and more importantly, oxytocin also regulates the immune system and autonomic nervous system (ANS)<sup>9-11</sup> which controls the internal organs and other key involuntary body functions. The restoration of physiologic balance by reducing activity in the flight-or-flight (sympathetic nervous system branch of the ANS), occurs because oxytocin is also released during times of stress. That is, it governs homeostasis; the disruption of which we homeopaths recognise, leads to functional disturbance that may lead to pathological change. (So, the fact that the healing professions [which all focus on promoting homeostasis], have universally taken as a symbol, the Staff of Asclepius with the snake as its talisman, is in light of this discussion, most intriguing.)

Specifically, oxytocin is the direct antagonist to the hormones epinephrine (adrenaline) and norepinephrine (noradrenaline), and it reduces levels of stress by reducing activity in the hypothalamic-pituitary-adrenal pathway. Other stress hormones (which we associate with fight/flight...more the province of the reptilian brain which focuses entirely on survival) are the medium-term stress response hormones, which include corticotrophin releasing hormone (CRH), adrenocorticotrophic hormone (ACTH), beta-endorphins, and cortisol; all also kept in check by oxytocin. It does this by increasing activity in the parasympathetic nervous system (PNS) branch of the ANS, which slows the heart, reduces blood pressure and energy expenditure, and promotes rest, digestion, and affiliation, resulting in a "calm and connection" effect.

## How does oxytocin function in the body?

In order for oxytocin to function effectively in the individual, its receptors need to be primed. The pattern is possibly set at conception which takes place during heterosexual conjugation under the influence of oxytocin; but is, as we know from research, primarily orchestrated during birth and lactation. During the birthing process when a good head position initiates the Ferguson Reflex (as the specialised nerves that detect stretch in the lower vagina and cervix are stimulated), a signal is sent to the labouring woman's brain, triggering an outpouring of oxytocin, which further increases contractions; and foetal descent further stimulates these nerves, thereby making birth a relatively efficient process.<sup>12</sup>

This positive feedback cycle, (another Ouroboros-like loop) may have a neuro-protective role for the foetal brain during labour by protecting against hypoxia, and elevates oxytocin levels in the mother, and these persist into the early postpartum period. Specifically, the oxytocin, which builds in the mother during labour makes her more maternal and allows her to bond with her baby. It also opens up the peripheral blood vessels on her chest so that the baby is kept warm during skin-to-skin time while he searches for the nipple. The added benefit of this getting-to-know-you time as the baby wriggles around on the mother's abdomen is the minimising of the risk of post-partum haemorrhage due to the continued oxytocin spikes that occur as a result of the close contact, and the colonisation of the baby's oral mucosa with maternal bacteria, thereby paving the way for an optimal microbiome.

We know from animal studies that synthetic oxytocin, which is used in a medicalised birth, crosses the blood brain barrier; and, due to continuous streaming via an IV-line, is known to lead to receptor desensitisation in the uterus. Since a drug-free physiologic birth is no longer the norm in this modern world of ours, it is not surprising therefore, that recent media reports sharing research undertaken by way of a questionnaire claim that "most mums (specifically 60%) do not feel an instant bond with their newborns."<sup>13</sup> Such a disconnect is the province of the reptilian mother who reproduces and then abandons her young to fend for themselves (survival of the fittest), and is completely at odds with what should prevail as the consequence of the physiologic birth of a mammal.

So, while the initial priming (or not, in the case of a medicalised birth) of oxytocin receptors occurs during labour, it is reassuring to know that extended breastfeeding up-regulates oxytocin as it's the oestrogens in the milk that induce the transcription of both oxytocin and its receptors, *and these play a pivotal role in transforming the epigenetic experiences associated with the primal period into permanent changes in the anatomy and physiology of the developing brain and central nervous system.*<sup>14-15</sup>

Therefore, since being breastfed is known to influence an individual's DNA, (expressed as the double helix spiral with its molecular structure looking very like two serpents intertwined), it gives us another intriguing association with the serpent. Additionally, because the predominant hormone (oxytocin) is also serpent-like in its configuration, human milk becomes the first homeopathic prescription (remember, like cures like and that it's Eve, representing 'universal woman', who has the ability to crush the serpent's head. (Genesis 3:15)). Therefore, it allows me to assert that *Lac humanum*, because it is a sarcode rich in oxytocin, is "the universal remedy"; capable of putting to rights the negative legacy that occurs when the primal period is less than optimal, such that life can then be enjoyed from a perspective of individuality and self-determination sought after in an altruistic way.

It is intriguing that the grand keynote of: "alternating symptoms" moving L, R, L, (or vice versa), is common in several Lacs, especially including lac-m and lac-h. Apart from the fact that it conjures up the undulating image of the serpent in motion, it is on a superficial level, possibly a reflection of the Doctrine of Signatures whereby nurslings tend to change sides in order to have a full feed. On a deeper level, however, it is more likely associated with the moderation of the expression of the double helix in our DNA that occurs under the influence of oxytocin. And, it is not for nothing that the mammary glands which define us as mammals are in the human situated in the heart chakra, known as the chakra of love.

## **What is the Psoric/Saurian connection?**

Both dragons and serpents have skins covered in scales; as does the individual suffering from psoriasis. However, in light of this discussion, it intrigues me that the word psoriasis derives from the Latin word for itch: psora, and has phonetic consonance with the Greek word for lizard: sauros. Is there a connection; and, if so, what is it? The psoric miasm is synonymous in our literature (among some) with "Original Sin" a term used among early masters to describe our basic "flaw" as described by Hahnemann in §81 "***Psora is the true fundamental cause and engenderer of almost all ... forms of disease...***". So (the oblique reference to the story of "The Fall" in Genesis, notwithstanding; but, keeping in mind that Eve's apple was probably a green one) oxytocin, due to the association that it

has with homeostasis and the pivotal role that it plays during conception, birth and lactation in driving positive epigenetic outcomes is, in my opinion, what drives Psora in its compensated form.

Because we focus on dis-ease, Psora is traditionally associated in homeopathic philosophy with: hypo-function; lack; weakness and an empty, all-gone feeling. All of these are the generally accepted keynotes of Psora, and relate to functional disturbance on a cellular level and this is what precedes pathological change if homeostasis is not restored. In that regard, Psora is recognised as the primary (fundamental) miasm and I think that Hahnemann got it right when he nominated but three miasms and Joe Rozencwajg<sup>16</sup> interestingly proposes that these three miasms are not so much about the epigenetic imprint of grand diseases, but rather more about the three basic human metabolic pathways of homeostasis (Psora), anabolism (Sycosis) and catabolism (Luesis).

This is a perspective with which I agree.<sup>17</sup> Psora, in its oxytocin-moderated compensated form, enables the individual to maintain balance (homeostasis), while Sycosis (which is driven by adrenalin, nor-adrenalin and cortisol; all antagonists to oxytocin) has an anabolic function. That is, it helps us to “grow” if we're prepared to face up to life's challenges and fight them. In a practical sense a little bit of Sycosis serves us well and possibly allows us to find success in the minutiae of daily living, whereby we're “up” for the fight and can well attend to Maslow's lower order priorities.

Furthermore, if we accept that the catabolic pathway is associated with Luesis, it is possibly driven by insulin. It's the lock and key hormone which can underpin “mature onset.....” pathology when the telomeres shorten and all bodily systems degrade as the time for transitioning from Life approaches. On the one hand, we associate Luesis with death and destruction; but, on the other hand, it is also about breaking through and regeneration. For those who acknowledge the process of reincarnation, it is possibly insulin which rules over the final “choice”; that of being offered the keys to the Kingdom of Heaven or of being locked out such that the soul/vital force needs to do it all again.

And so, the business of doing Karma is a bit like that of the snake that needs to grow another skin in order to live another day. When one is done with “the lessons” the “higher purpose of existence” is attainable. The serpent, therefore, probably does not hold the answer to immortality (self-realisation) but ties us to the pathway leading to reincarnation. The reptilian energy (fight/flight; focused on survival only) is essentially sycotic so the shadow is where it best lies; it eschews the light.

Adaptation in evolutionary terms is associated with the instinct to preserve the genes; to survive. So, traces of our genetic heritage are always going to be part of our current makeup. And, while on one level Psora is possibly corrupted by a saurian genetic tag associated with our reptilian evolutionary origins, it is possibly that tag which drives reptilian behaviour during the primal period where reproductive practices tend to circumvent the oxytocic pathway leading to the production of offspring with a dearth of oxytocin receptors, bereft of a suitable microbiome, and caught up in the grip of Sycosis.

However, I believe Psora can be our ally if, as a species, we embrace the oxytocic agenda and conceive, birth and nourish our offspring as Nature intends, such that the negative attributes of hypo-function and lack will be balanced out. Furthermore, if we acknowledge that, since oxytocin is a direct antagonist to the stress hormones, we will (when oxytocin receptors have been adequately established during the primal period), derive maximal benefit from the positive attribute of ebullience which allows us to fully engage in Life. This makes sense when we acknowledge that an “itch” is just as likely to refer to a sense of dissatisfaction with the status-quo. So, if we trust in our ability to make good choices when guided by a sense of curiosity, and are prepared to keep up the struggle to be Human, and the desire for positive social engagement which encourages us to “Seek so that we might find” we can fulfil the dictates of §9.

Enlightenment is an interesting word. It is a state of “being” arrived at as a consequence of good choices and implies that you’ve attained Wisdom and figured it out; you’ve moved from the shadow into the light. And as the songster-poet Leonard Cohen so exquisitely explained to us: “There is a crack in everything...that’s how the light gets in”, using the positive attributes of Psora will facilitate self-realisation; and this is possible when Psora is well-modulated as a consequence of acquiring maximal oxytocin receptors due to being born and mothered well.

Keep in mind that primates lactate for six times the gestation rate. So, when humans have access to the maternal breast for such an extended period and wean when they are ready, they are best able, according to Erikson’s Schema, (see Figure 1) to engage in Life from a position of Trust and Autonomy as a consequence of having resolved Life’s initial two crises in a satisfactory (i.e. positive) psoric manner. When the infant has not been able to get established on the psoric tread of “The Stairway to Heaven” then he is consigned to the shadow of Sycosis and the luetic miasm will greet him at the end of his days and the reincarnation pathway, instead of the ascension pathway, becomes his only option.

Figure 1

**ERIK ERIKSON’S EIGHT EPIGENETIC STAGES OF MAN**

VIII Maturity/Old Age: (WISDOM)	Ego Integrity vs Despair, Disgust
VII Middle Adulthood: (CARE)	Generativity vs Stagnation
VI Young Adulthood: (LOVE)	Intimacy vs Isolation
V Puberty and Adolescence: (FIDELITY)	Ego Identity vs Role Confusion
IV School Age: Latency (COMPETENCY)	Industry vs Inferiority
III Play Age: Locomotor/Genital (PURPOSE)	Initiative vs Guilt
II Early Childhood: Muscular/Anal (WILL POWER)	Autonomy vs Shame, Doubt
I Infancy: Oral/Sensory (HOPE)	Basic Trust vs Mistrust

Source: Adapted from diagram in *Childhood and Society* by Erik H. Erikson, 1963, reproduced in *Personality Theories*, L. A. Hjelle and D. J. Ziegler (editors), McGraw Hill Inc., Sydney, 1985, 2nd edition

"The Author of all good, when He allowed diseases to injure His offspring, must have laid down a means by which those torments might be lessened or removed." (Hahnemann *Lesser Writings*)

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