

# Myth and Mind

## The Origin of Human Consciousness in the Discovery of the Sacred



Gregory M. Nixon, PhD

University of Northern British Columbia

Prince George, BC, Canada

Originally published in the

*Journal of Consciousness Exploration & Research (JCER) 1(3), 2010*

## Contents

Abstract	... 2
1. Introduction	... 3
2. Human Consciousness	... 5
3. The Mythic Mind	... 8
4. Thresholds of the Self	... 12
5. Approaching the Existential Crisis	... 19
6. The Symbolic Crossing	... 22
7. The Prehistoric Moment	... 26
8. Myth and Language	... 31
9. Afterword: Prehistoric Speculation	... 40
References	... 42

## Images

- i. The Sacred Tree (Babylonian seal, ca 4.5 – 2.5 kya, now in the British Museum, London), title page
- ii. Venus of Laussel (stone wall carving, ca. 25 kya, now in the *Musée d'Aquitaine*, Bordeaux, France), end of Afterword

## Abstract

By accepting that the formal structure of human language is the key to understanding the uniqueness of human culture and consciousness and by further accepting the late appearance of such language amongst the Cro-Magnon, I am free to focus on the causes that led to such an unprecedented threshold crossing. In the complex of causes that led to human being, I look to scholarship in linguistics, mythology, anthropology, paleontology, and to creation myths themselves for an answer. I conclude that prehumans underwent an existential crisis, i.e., the realisation of certain mortality, that could be borne only by the discovery-creation of the larger realm of symbolic consciousness once experienced as *the sacred* (but today we know it as *the world* – as opposed to our immediate natural environment and that of other animals). Thus, although we, the human species, are but one species among innumerable others, we differ in kind, not degree. This quality is our symbolically enabled (culturally constructed) self-consciousness, the *fortress* of cultural identity that empowers but also imprisons awareness.

## §1. Introduction

Innumerable theses, guesses, or claimed revelations purport to explain the origin of human be-ing, none accepted by everyone. Here I offer another. Though what follows is not an absolutely original thesis seeing first light of print, perhaps this statement will present a new synthesis on this most ancient of questions, as well as endorsing certain minority positions that inhere in my conclusions. I recognize that causal explanations are themselves mythic in that they tend to narrate a linear domino-effect story that disguises a network of causal processes.

That said, herein I state that being in the human sense first awoke with the departure from the sensory focus within the natural environment and the entrance into an entirely new world of the symbolic mind. This transformation into opened syntax and active imagination was experienced as an awakening to the sacred — not merely to new survival tactics, technological possibilities, or social enhancement. Sacred awareness is of the felt dimension of invisible powers and presences and is here understood to include the apprehension of a *far beyond* in time and space (the latter including the vertical polarities of supernatural heights and subterranean depths). This awareness warrants the term ‘sacred’, however, not for its content alone but more for its affective tone, though the two are not finally separable. In a way that is almost lost to us, the supersensory images of the sacred, ‘by whose vision man was overcome, must have produced ecstasy, devotion, allegiance, and exaltation’ (Otto, 1965, p. 15). A vast emotional yearning had arisen, a need for *meaning* that ritual and myth, if not fulfilled, at least assuaged. In short, in a teleological sense the need for myth made language,<sup>1</sup> which is to say, myth made humanity.

Controversial assumptions I touch upon in what follows include the notion that central to human being are self-awareness and communal intersubjectivity, both impossible before the crossing of Walker Percy’s (1975) ‘symbolic threshold’ (cf. Deacon, 1997). I also adhere to the reasonable surmise of the existence of a millions of years long intermediate period between direct animal-natural experience and the crossing of the symbolic threshold during which earlier hominid species learned to use protolanguage,<sup>2</sup> were subliminally conscious (of their own existence), and in that sense were *protohuman*. Finally, upon balanced consideration of the widely disparate evidence and expert opinion on it, it seems likely that the moment of awakening *within symbolic forms* must have occurred in the Upper Paleolithic amongst the people we currently designate as late *Homo sapiens* (*H. sapiens sapiens*), the Cro-Magnons, approximately 35 to 55 kya (thousand years ago),<sup>3</sup> though this is highly controversial.

---

<sup>1</sup> Hauser, Chomsky, & Fitch (2002) refer to FLB, the faculty of language in the broad sense, that many animals have, & to FLN, the faculty of language in the narrow sense, that only humans have. When I speak of ‘formal language’ or ‘human language’ throughout, I refer to the latter.

<sup>2</sup> *Protolanguage* as explained by Bickerton (1995), not as *first language* (cf. Ruhlen, 1994).

<sup>3</sup> I find the ‘kya’ (thousand years ago) or ‘mya’ (million years ago) designations less confusing than the B.C.E. & C.E. designations, & certainly less so than the B.C. & A.D. traditional ones.

However, equating symbol-using humans with the Cro-Magnon is incorrect since scattered symbol-use appears in the fossil and archeological records of humans before entering France (or even Eurasia) where the Cro-Magnon cave is found. Anthropologist Richard Klein (2002) makes the case for an east African origin of symbolic interaction based on the discovery of human-made ostrich eggshell beads, ca 50 kya, but since then older ostrich eggshell beads have been discovered at Diepkloof Rock Shelter, a cave in South Africa (Texier *et al*, 2010). The oldest, but still controversial, evidence for symbol-use comes from excavations at Blombos Cave in South Africa (Henshilwood *et al.*, 2001), where incised cross-hatchings on stone and signs of iron oxide ochre use have been found, originating more than 70 kya in the Middle Paleolithic. Some have seen these scratchings as early signs of language, but the problem with equating these early African findings with the crossing of the symbolic threshold into concept-creating humanity is that these are but scattered islands of discovery. They are as anomalous as the cave drawings from Panaramitee in Australia (ca. 45 kya) that exist in isolation without precedent or continuance. To judge from the lack of similar evidence of symbolic-use in nearby times or places, such ‘symbol use’ appeared randomly and did not survive to spread to descendants or other human groups. There is no strong evidence of long-term immersion in a symbolic culture that depended on the faculty of language in the narrow sense (FLN) for its survival. At least at this writing, I submit that the only indubitable evidence for long-term (over tens of thousands of years) immersion in a culture of imaginative extravagance based on the symbolic interaction of the FLN is still found in the Upper Paleolithic era in southern Europe (And I do not believe such an objective review of the evidence makes me *Eurocentric*.)

My preference for the recent origin of the human symbolic capacity is a rational assessment based on admittedly second-hand evidence from the testimony of well-known experts who shall be cited later. However, the debate over early or recent origins is for paleoanthropic specialists and is a peripheral issue to this study. The nature of human symbolic processes, whenever they first came to light, is the focus. The trend in current studies has been decidedly toward the quantitative, that is, to consider the symbolic capacity largely as the ability to make tools, retain social organization, and leave records of such marks as may be termed symbolic in the sense that they *represent* in the abstract something that exists in the concrete (including the passage of time). Such may be included, but I understand the symbolic as more related to the intersubjectivity that is indicated in the social science phrase, *symbolic interaction* (Blumer, 1962), which is in essence human culture. Such a system is not primarily representational at all, but is instead driven by autopoietic (self-creative) processes.

My use of the term *symbolism*, as such, is drawn from Cassirer (1954-7, 1946a, 1946b), Eliade (1963, 1978-85), Bachelard (1987), Barfield (1977), and Ricoeur (1967). Though these individuals often disagree, their views in general accept that symbolism is especially the use of nonrepresentational sounds, icons, etc. to refer to other sounds, icons, etc., as well as to abstracted concepts, images, or feelings, and even to nothing but the imaginary bounds of space or time — meaning the *beyond-the-horizon* or the *yet-to-come* (Crapanzano, 2004). The symbolic threshold is a departure from the concrete here-now world of perceptual response experience. Symbolism in this sense is always self-referential and does not merely reproduce an outer object within one’s mind. With

what may be called the first *leap of faith*, symbolism provided the bridge to apperceive existence where and when it was not, in the strict sense, perceived.<sup>4</sup> The point to be emphasized here is the gulf between ‘symbolic’ *representation* (which copies or counts the environment) and symbolic *interaction* (the liminal intersubjective ‘space’ in which cultural worlds are created). The felt realisation that presences exist well beyond the duration of this moment or the space of current observation can be equated with the dawn of imagination — projecting (or *receiving*) symbolic images from invisible times and places. Thus, the symbolic is not representation but discovery — discovery of the imagined forms of *mythic reality*, still the core of human consciousness. The mythic and the sacred are thus the *realising* (the making real) of *cosmos*, that is, the greater order of things, and the awful task of ascertaining our place within it. In any case, this is at least the thesis I am now setting out to build a case for.

## §2. Human Consciousness

To claim that humans are the only living things on this planet that are conscious sounds grand to some but repugnant to others. Today such a claim is often called anthropocentric arrogance, especially since, as mentioned above, the sciences are finding more and more continuity between the biology and behaviours of nonhuman species and our own. Not only is neuroscience unable to locate a neural module or major cerebral lobe unique to humans,<sup>5</sup> but tool use and toolmaking, warfare, complex cognition, and complex communications have been observed amongst birds and other mammals. Other more subtle traits once thought to belong solely to humanity have been inferred, including creativity and art, symbolic interaction (language use), abstract (or symbolic) cognition, imagination, deception (implying a ‘theory of mind’), reminiscence, self-identity or self-concept, social emotions, and even culture (*cf.* Beamish, 2004; Dunbar, 1998; Gallup, 1987; Moussaieff Masson & McCarthy, 1995; Pepperberg, 2000; Povinelli, 1999; Savage-Rumbaugh & Lewin, 1997). No one that I know of, however, has ever claimed for nonhuman animals any form of pictographic or written language.

Humans are animals but a particular sort of animal, one that has *cultivated* self-awareness.<sup>6</sup> But arguing against the Cartesian view that animals do not *feel* should be

---

<sup>4</sup> This conception has been rather arbitrarily dismissed as *literary* or psychologistic even *romantic* in many academic circles these days, but psyche is real is all the same. In this view, we are surrounded by it: It is our world.

<sup>5</sup> The evolutionarily sudden growth spurt of the frontal lobes and the whole cerebral cortex some 150-250 kya is explained by Wills (1993) as a *quantitative* change due to environmental change, leaps in technology, or fire use. Since Raymond Dart made the first cranial endocasts of hominid fossil skulls, others such as Philip Lieberman (1998) have increased the sophistication of the practice, but cranial endocasts are unable to reveal the *qualitative* change in human experience catalyzed by concept & symbol.

<sup>6</sup> There is not the space here to deal specifically with infant mimicry, Gallup’s famed ‘red dot test’ (1970), or claims of primate (Savage-Rumbaugh & Lewin, 1997) or cetacean (Beamish, 2004) symbol use. Suffice to say that such symbol *use* is at best *indexical* and has nothing to do with conceptual participation in a self-referential formal language structure (see Deacon, 1997). Fitch and Hauser (2004) denied that a nonhuman animal brain has the computational power for syntactical language. Gallup himself (1987) noted that such facial self-recognition in a chimp ‘does not presuppose that it is able to conceive of itself as a separate, independent entity with an identity of its own’ (p. 3). The basic mistake in interpreting such neonate or nonhuman animal experiments is likely an underappreciation of the pervasive power of *mim-*

unnecessary. Animals do feel, and warm-blooded social mammals probably have evolved emotions not that different from our own foundational repertoire. How else could we communicate so readily with our pets? Groups of elephants have even been observed spending days over the bones of a once-proud matriarch, moving and caressing the remains with every sign of deep mourning (Moussaieff Masson & McCarthy, 1995). This suggests that they are aware of the finality of death. Perhaps. But whatever the case for our animal brethren, we have no reason to suspect that their emotional knowledge is reflectively applied to themselves. That is to say, for example, there is no sign that the finality of death they observe around them confronts each of them with the *inevitability* of their own ‘personal’ demise or that of their loved ones.

But beyond that, the conflict whether humanity is utterly different in kind from the rest of the animal kingdom can only be resolved by assuming a perspective. It can be seen that we can be readily placed into the Darwinian scheme of biological evolution. Physiologically, we are just another beastie evolved in the primate line that lives off the killing and processing of other organisms, that is host to a plethora of minute parasites, and that is ultimately, like all living things, a symbiotic compound of cells and bacteria. Now those who study human culture and its variations will be very unlikely to consider the way whale pods sing unique songs or groups of chimps vary in their grooming habits or termite fishing as indications of distinct cultural complexes within those species. For such, humanity is not just one-of-a-kind because it is *our* species, but because it engages in planning and constructing environments to suit its desires rather than merely making modifications or itself becoming adapted (over generations) to a particular environment.<sup>7</sup> Can both or neither be correct? The unspoken fundamental assumptions of either perspective are unprovable and in that sense not arguable. In short, any *perspective* assumed is already a mythic worldview. Since we cannot *become* nonhuman animals to discover firsthand if *it is like anything* to be one, we cannot directly know in what way our experience differs, if it does, or if it is beyond any possible comparison. Is there no perspective I could take that permits me to base my thesis on stating that our experience is conscious to itself in a way that is not possible for any other animal?

There are at least two objective paths to getting around this conundrum. One might attempt to imagine the perspective of a Martian arriving here, as Percy (1975) suggested. Assuming this Martian is of appropriate size and can perceive what has happened on planet Earth, he would soon see that one particular ‘naked ape’ has overrun the surface and is even making ventures beyond it. Not only are our numbers *unnaturally* high, but our structures and industrial activities have practically resurfaced the face of old Mother Earth. Signs of our presence can be seen from the moon, at least at night. Beginning with the control of fire, humanity *makes* things far beyond what is necessary for basic survival. On the matter of *human works* two great philosophers of myth and symbol agree. Cassirer (1944) states: ‘Man’s outstanding characteristic, his distinguishing mark, is not his metaphysical or physical nature — but his work’ (p. 68).

---

*sis* and *proprioception*, the *preconscious body-image* that develops rapidly with the growing infant and which a few primates appear to discover and explore in mirrors or video monitors.

<sup>7</sup> If *learning* to feed, groom, or vocalize in a particular manner is identified with culture, then many birds & mammals can be so entitled. Many nonhuman animals adapt their behaviour as the result of learning from their group, but these are cultural learning adaptations based in mimicry not symbolic exchange.

Eliade (1978) agrees that ‘what matters is not the anatomico-osteological structure of the Paleanthropians (which is similar, to be sure, to that of the primates) but their *works*; and these demonstrate the activity of an intelligence that cannot be defined otherwise than as “human” (p. 5). The other path that is astonishingly ignored across a wide variety of disciplines is that of theoretical linguistics, possibly because we are so immersed in language that we can never step back far enough to catch it action. This is, of course, a topic of its own, but allow me to suggest that the study of the less concrete but very near to hand symbolic carapace of the human mind — the interweave of music, dance, myth, language, art, even organized sport, etc. — reveals beyond question that we humans experience our own existence in a way unknown and unknowable to other species, and that way is a conscious way.<sup>8</sup>

My thesis that human conscious experience appeared suddenly, at one point in time, depends only partially on the acceptance of the closed or psychological conception of consciousness. In the closed definition, conscious experience is unique to humans (the reasons for which will be examined in the final section), but that by no means implies that other animals are automatons. What it does depend on is the recognition of the great rift dividing human from infrahuman experience, name it how you will.<sup>9</sup> I prefer the explanation for the great rift advanced by Dewart (1989) that on one side is non-human (or prehuman) nonconscious (or preconscious) experience and on the other experience with the added quality of consciousness, i.e., human experience. Conscious experience, like some singular primordial deity or demiurge subdividing or giving forth a fertile fluid, ‘gives birth’ to the world of things and divides interior selfhood from it. Self and world come to be simultaneously. Conscious experience is autopoietic since we have magically (i.e., beyond the ways of Nature) *conceived our selves*.

Experience (or *life*) is somatic sensations, raw responsive sentience, or even emotion, but these are only *consciously recognized* as such by the human mind, which has somehow abstracted itself enough to *know* and *name* them — and the experienced world of objects too. At least one well-respected physiological and consciousness researcher has recognized nonconscious experience. Benjamin Libet (1965) wrote:

It has become generally accepted that a large, perhaps even a major part of our mental activities can take place without our being consciously aware of them. Though apparently unconscious, they are nevertheless part of significant mental experience since there is evidence that such activities can participate in later mental and behavioural manifestations — cognitive, affective, or conative. (p. 77)

---

<sup>8</sup> The inherent syntactic creativity of most human sentences and the symbolic reference to concepts (beyond symbolic *representations* of reality) are enough to set human language apart from all other modes of communication. Worth noting is that d’Errico *et al.*, 2003, claim inscribed symbols amongst archaic *H. sapiens* &, with less evidence, Neandertals, ca. 75 to 200 kya.)

<sup>9</sup> This threshold is recognized under a variety of other terminologies, including Edelman’s (1992) primary to higher order consciousness, Damasio’s (2000) core to extended consciousness, Bickerton’s (1995) primary to secondary representational systems, Donald’s (1991) leap from the episodic to the mythic stages of cognition, McCrone’s (1999) awareness and self-awareness, Rosenthal’s (1993) transitive and state consciousness, or the common but redundant ‘conscious of consciousness’.

So if the reader insists on employing the open, all-the-way-down definition for ‘consciousness’, I assume s/he means to specify human-only consciousness by explaining it as ‘self-consciousness’ or ‘reflective consciousness’. Since the *name* applied to the uniqueness of human experience is not a point on which my thesis rises or falls, I will not quibble<sup>10</sup> — as long as it is also accepted that the *self* is not just an extra item of *which* we are conscious but is instead that which is present in all conscious experience. We experience *through* the self. Everything we do, think, or say is tinged with the evanescent presence of the (often kibitzing) inner observer. Our whole world is a reflected world, and we are each the mirror, smoked or clear, for that reflection. We no longer even perceive the original perceiver, the animal eyes that looked into the mirror in the first place. We can be said to have fallen under an unnatural spell of the symbolic<sup>11</sup> to find we have *become* the mirror, looking out at the image of the world and of our own embodiment from within the magic mirror of our own conjuration. This is the topic of my excursus: Whence this self, this reflection, this conscious quality of experience? But first we must digress to get a feel for the uniqueness of mythic<sup>12</sup> consciousness within the larger frame of human consciousness.

### §3. The Mythic Mind

The conscious mind itself may be further classified into epochs. The conscious mind that forms myths and lives them — that is, experiences such myths and associated rituals as reality — is not the same as our own culturally constructed conscious mind. Immersed in tribal memory and feeling, the quality of consciousness is less particular and more general. In some ways, the light of mind is dimmer for mythic consciousness because there is much less focus on an isolated individual self that regulates attention and from within which, we imagine, our actions spring forth. E.R. Sorenson (1998), in a study of the ‘pre-conquest consciousness’ of the tribal mind, admits that ‘liminal awareness was the principal focus of mentality in the pre-conquest cultures contacted, whereas a supraliminal type that focuses logic on symbolic entities is the dominant form in post-conquest societies’ (p. 82). The mythic mind lacks the isolation in the sort of *preternaturally lit interiority* that is necessary for the analytic processes of modern consciousness. The latter requires a certain diffraction of natural light into a subjective nebula of self-centred thoughts and memories — in other words, a Promethean theft of fire. Within the horizon of primitive<sup>13</sup> reality, this theft has not yet taken place. In a way that is difficult for us to *analyse*, subject and object are not yet fully distinct. The world is not experienced as object, as *other*, ‘out there’, from which we withdraw for the sake of its identification and categorization.

---

<sup>10</sup> Except to say that I think these terms remain inappropriate. According to Leslie Dewart (1989), my mentor in this area of philosophy, experience becomes conscious to itself in dim apprehension *before* a sense of self or reflective thought is established.

<sup>11</sup> Compare Abram’s *The Spell of the Sensuous* (1996), which views the same idea from outside the mirror, as it were: the human animal within the mind drawn into the spell of the symbolic.

<sup>12</sup> Some would say ‘mythopoeic’ or ‘mythopoetic’ (mythmaking) would be the proper term to describe consciousness, but that would be to give consciousness a reified priority. I mean to imply that consciousness itself is as much a product as a cause of *mythos*.

<sup>13</sup> that is, ‘original’ or ‘archetypal’, the primitive meaning of ‘primitive’.



On the other hand, the *light* of mythopoeic awareness may be metaphorized as much more widespread for those same reasons. This light has not been withdrawn to an intense focal point in one's head but remains unencompassed all around in the surrounding ecosystem: one's individual self is not an inner object to be watched and guided and the world is not an outer object to be manipulated but the active physical presence with *whom* one is deeply and inescapably bound. This one fact (which cannot be biologically or analytically observed) is the skeleton key to understanding the other unique facets of mythopoeic reality that will be listed in a moment. The source of consciousness for the mythic mind is reality and reality is the natural environment that *incorporates* individual and tribe, though some degree of variation between identification with nature and creeping individualism is bound to exist within the expanse of what is here being referred to as the mythic mind.

In contrast, the source of consciousness for modern educated humanity is the bright focal point of one's self, the 'ego complex', through which the world can be minutely studied as 'information' but only dimly and indirectly experienced. The consciousness of educated 21st century humanity may be imagined as a city<sup>14</sup>: a dense collection of thousands of tiny, distinct points of light. Compare this to the more decentred effulgence of a tribal village in the rain forest at dawn. No light source can be discerned, yet everything is awakening and becoming clear in equal measure *from the outside in*. Only the moving shadows are left to suggest mythic presences more felt than seen.

Of course, even within the 'space' of what I am calling mythic experience there is evolution and transformation as well, though not to the extent of the categorical changes which preceded it and which followed. As mentioned above, this writer attributes the growth of literacy and, later, the alphabet to the spread of the rationalism that allowed our ancestors to doubt the existence of their gods<sup>15</sup> and put them on the path toward the distancing from the world as required in objectivity and the simultaneous inflation of subjectivity toward empirical philosophy. There are other perspectives certainly on how mythic reality was breached. The great literary mythologist, Joseph Campbell (1969), considered the growth of 'hieratic city states' as the first authoritarian systems of top down social control. This enforced cohesion of codified belief systems by royalty and/or priests (occasionally priestesses) is then the unhappy condition that led humankind down the garden path from the realm of myth and legend. Both writing and authoritarianism negate two important qualities of a purely mythic comprehension: a graphic system lessened the dependence on the spell of images by creating a codified record of historical events (i.e., a non-participatory external memory), and the need to *enforce* social control with threats of punishment for disobedience is exactly the opposite of the communal identity that once brought about tribal cohesion and conformity.

---

<sup>14</sup> 'Educated thought today resembles a smoggy great metropolis. "The man in the street" has a million streets, squares, pedestrians, flashing lights, manholes, roundabouts, skyscrapers, newspapers, boulevards, banks, signage, theories, monuments, computers, TV screens, shopping malls, pawnshops, freeways, and alleyways — all steaming with pollution — inside his head! Cross-section almost any human cranium and you'll find Babylon' (Eliot, 1990, p. 11).

<sup>15</sup> Though E.R. Dodds (1973) makes the case that the 'irrational' was preserved in Greek philosophy.

These early city-states — some of which grew into empires in various places across the ancient world with external memory for keeping records and measuring time, literacy for the few, authoritarian power structures, improved technology for farming, husbandry, and city-building, early sciences such as astrology/astronomy, and soldiers trained for war — had already begun to enter Merlin Donald's (1991) theoretic cultural level of secular progress and rational competition. But even though their myths and rituals had become codified into sacred texts and formal practices, these empires and kingdoms<sup>16</sup> still took their religions seriously enough for the gods to play an important role in daily life, so they may be said to still have one foot in mythic culture and the other in the self-centred individualism of Donald's theoretic stage.

That which preceded mythic experience, as such, is difficult to discern because nobody can agree when specifically human experience itself began. There certainly was a long stretch of time during which it is possible to guess — by extrapolation from the recovered evidence — that hominid experience became more complex and included elements of behaviour deriving from abstract realities beyond the immediacy of sensory perception that are lacking in other in other animal species. This is to say that before mythic narratives were articulated humans or prehumans<sup>17</sup> reacted to unusual natural phenomena or creative breakthroughs (in survival skills or social activity) with such heightened emotion it became *manifest* in visionary images. Such images, it has been suggested, were experienced as nothing less than revelation — perhaps of the deity behind the phenomenon or at least of previously unknown *powers*.

According to the highly respected husband-wife team of ancient Near East studies, Henri and H.A. Frankfort (1949), 'primitive man' was unable to distinguish between events and perceptions 'out there' and those 'in here': 'Hence the distinction between subjective and objective knowledge is meaningless to him. Meaningless, also, is our contrast between reality and appearances. Whatever is capable of affecting mind, feeling, or will has thereby established its undoubted reality' (p. 20). In some imagistic, emotional but not yet truly symbolic fashion, early humans dwelt in a mythic world — as opposed to mainly stimulus-response infrahuman episodic existence without abstract images — *before* such mythic experience became conceptually conscious to itself.

Cassirer (1946a) indicates that in a general sense religion begins here. After such seizures of consternation, awe or terror, the cause is collectively felt to be unseen, unnamed, and uncanny *presences*. 'Momentary deities refer to sensed power, coming and going like the emotion that spawned them' (p. 19). Noesis is itself naught but these intuitive apprehensions that evolve into images. Cassirer explains 'that before man thinks in terms of logical concepts, he holds his experiences by means of clear, separate, mythical images' (p. 37). Over time, a vague sense of a particular deity or demon might cohere allowing for differentiation from other such emotional coherences, and thus reify into a numinous image of tribal memory. So, in this sense, the beginning of mythic experience

---

<sup>16</sup> I mention 'kingdoms' and not realms of the Goddess or possible matriarchies since these seem to have mainly vanished by the era of city-states. The many 'Venus' figurines found, however, indicate that goddess worship pre-existed agriculture (*e.g.*, Gimbutas, 1988).

<sup>17</sup> This applies to *H. erectus* but probably also to archaic *H. sapiens* and *H. neanderthalensis*.

in a sacred reality predates the sense of myth as nominalizing or narrative verbalizations.

We could say that sudden overwhelming emotions or moments of spontaneous creativity are some of the ways in which this (super)natural reality is known to consist of ‘more than meets the eye’, but only if we can comprehend that such emotional apprehensions and creative breakthroughs were *not* experienced as subjective in origin. With a diminished — one might almost say *occasional* — sense of self as *inner distinctness* and a concurrent open (if not quite unbounded) identity with the tribal unit and even with all that which we designate as ‘nature’, the preverbal mythic mind experienced all such extraordinary emotions and, more importantly from our perspective, such creative behaviours or breakthrough imagistic in-sights as *unsought arrivals*, received by humanity but sent by the gods. We may be proud of *our own* insights and creative spontaneity because we take full credit as their author, but Cassirer (1946a) points out that ‘mythic conception shows exactly the opposite tendency, namely to regard all spontaneous action as receptive, and all human achievement as something merely bestowed’ (p. 60).

It appears there was at least one very early preclimactic threshold crossed between our fundamentally direct primate experience and the climactic threshold that first created conscious apprehension of ourselves as experiencing beings in a potentially objective world.<sup>18</sup> The primordial threshold of experience would not have resulted in such conscious apprehension of ourselves but it would certainly have drawn a line in the snow between our ancestors and the rest of the flora and fauna. These proto-persons would have been able to indicate a limited expansion in time and space, some degree of yet-to-come, what-has-been, or what to anticipate over the next hill, but they would not yet have been ready or able to speculate into the unknown beyond these perceptual extrapolations. Other attributes posed as unique to mythic consciousness by recognized experts in the field can usually be placed on either side of this first borderline.

For example, Eliade’s (1954) demonstration of the eternal recurrence of cosmic cycles of time certainly applies to the mythic mind in general, but it is unknown how a presymbolic culture could share or even conceive of such an idea. It may have observed the cycle of the seasons or changes in the moon but it could not measure them without a means to do so. Shamanism as a topic of research and conversation was brought into the universities by Dodds (1973), Eliade (1964), and others, where its ‘ecstatic journeys’ were often proclaimed as the origins of mythologems or archetypal images and sometimes of human consciousness itself, especially when spurred on by psychedelic plants, as McKenna (1993) would have it. Since psychogenic substances as well as hollow logs for drumming have been present since life got rolling, there is no reason to assume shamanism was not practiced amongst hominid species that preceded *sapiens* and Neandertal. Gesture, mimicry, vocalizations, and movement would have been sufficient to communicate the content of such journeys and perhaps to relive them in what became ritual. This phenomenon will be brought up again in the next section.

---

<sup>18</sup> Of course there have been a multitude of more minor leaps and stumbles, some into oblivion.

In the same way, gesture and vocal sound communication could lead to advanced forms of mimicry that result not only in toolmaking — very rare amongst nonhuman animals — but also the forerunners of music including (if the study of remaining tribal groups in the last century is any clue) rhythmic or contrapuntal breath or vocal sounds, rhythmic ‘drum’ beating,<sup>19</sup> and even synchronized group movements, the forerunner of dance — all of which are ingredients of ritual behaviour and any of which would bring one to a standstill if observed amongst nonhuman animals. Adaptations of these modes of communication and expression, in their complexity distinct to humans, likely were learned with awe and even fear since presymbolic humanity<sup>20</sup> was extraordinarily conservative in technology, survival tactics, and very likely in social arrangements. To change from the wisdom of tradition was to risk death. But consider that these shared activities were never felt as one’s own or the group’s experimental inventions but were, instead, *received* (perhaps as gifts) from the surrounding whole or from demiurges within it. The resulting ‘music and dance’ likely led, on one end, to creative elaborations of territory marking, mating displays, or even war dances; but also, on the other, to a such deep transpersonal communion with one’s tribemates that such was experienced as transport back into the realm of origins, of the sacred.<sup>21</sup> Communion of this depth is not seen elsewhere in nature, to our knowledge. It apparently was something new on Earth, preceding self-consciousness and personal identity. The foregoing demonstrates how primary intersubjectivity (see, e.g., Gallagher, 2001) is the garden from within which individual subjectivity later sprouts.<sup>22</sup>

#### §4. Thresholds of the Self

Aside from the minority who in the face of good evidence will continue to insist that human conscious experience is no different in kind from the ‘consciousness’ of a naked mole rat, most elementary textbooks share a common list of the major steps hominids have taken toward ‘the ascent of man’.<sup>23</sup> Others might have added or removed or reinterpreted some thresholds, but this first glance is to only to note the standards. It’s safe to say that the metaphor of ‘steps’ on a journey toward a seemingly preordained goal tends to prejudice us into thinking of slow, laborious, quantitative advances on the road to our inevitable incarnation as fully conscious beings. Then, however, three possible *moments* in the awakening of the mythic mind will be discussed, making clear where I think the evidence (such as it is) indicates qualitative leaps — in the unlikely event the reader has not already discerned my drift.

---

<sup>19</sup> It has been suggested that certain indentations on stalagmites in caves show a regularity of impressions over time that could have been made by ‘drumsticks’ for experiments in sound (e.g., Chauvet, Deschamps, & Hillaire, 1996).

<sup>20</sup> Again, this term probably includes all related species since *erectus*.

<sup>21</sup> Whether this sacred was *discovered* (Eliade) or *created* (Cassirer) is finally a moot point. Who is *right* — we who see creativity as a personal talent & possession, or archaic humanity who felt creative images arise as *received* revelations from forces of Nature?

<sup>22</sup> ‘Theory of Mind’ or ‘mindreading’ propositions (e.g., Povinelli, 1999; Premack, 2004) assume the primacy of a private subjectivity that must at a very young age somehow reason its way to comprehending other minds because others behave ‘like me’. Primary intersubjectivity makes such ideas unnecessary.

<sup>23</sup> The status of evolution in textbooks of certain U.S. states — such as Arkansas, Louisiana, & North Carolina — tends to fluctuate.

Without going into the fossil record or the relentless quarrels over speciation and dating, it's reasonably safe to say that the first differentiation from other primates is the regular upright posture and bipedal gait of our evolutionary forerunners, the Australopithecines. Such uprightness, however, would allow a completely new perspective on the environment and one's place in it. Standing above the African savannah,<sup>24</sup> the animal's orientation would become more vertically aligned with the result that the sky above and the earth below would gain in significance. The freed hands and thumbs made handling and throwing objects much easier, no doubt. This change alone, however, is no difference *in kind* from other animals.

Tool use of some sort has been widely detected among our animal brethren, but the singled-edged stone choppers that were made by the first known members of the genus *Homo*<sup>25</sup> are unique due to the fact of the species' apparent dependence upon them. Such dependence on stone tools already makes a clear distinction between hominids and the rest of the animal kingdom, but there is no reason to suspect their basic life experience was much altered from the instinctual struggle to survive in the given environment. This can be said about technology in general. Even with the improvements of the hand shaped stone axes of *H. erectus* that demanded a first level of abstraction by making tools according to a mental template, or the later transition to the Mousterian stone culture, there is no reason to expect that the inner life of such prehumans was much transformed. Clearly, though, by having to remember the ax making technique, the *beginning* steps into abstract cognition had been taken.

Fire, what a compelling mystery! The true story of its mastery and the psychological repercussions must be marvellous indeed, if only it could be told. With this accomplishment — and it was an accomplishment — humankind irrevocably distinguished itself from all other animals. We know little enough about the cause or consequences of controlling the flame, but it is undeniable that it has been a *fire* to the imagination ever since then. Myths worldwide are associated with this feat, very often similar to the Promethean paradigm wherein fire was stolen from the hearth of the gods or was a gift from same. Primordial sexual intercourse between founding divinities was sometimes thought to bring with it fire. There are few sacred rituals that did not involve fire in some form; certainly it is the central feature of the sacrifice and 'burnt offerings'.<sup>26</sup> Fire as metaphor is irresistible; in Christianity, for example, it is found both in the candlelight of the holy and in the hellfire of the infernal (not even to consider the burning away of sins in Roman Catholic purgatory). Further, all fires are essentially one fire, as evidenced in the manner in which they *enthusiastically* (re)join each other. Our forebears may have felt that in their preserved little flame they held a bodily part or even a child of the 'Mother of all Fire'. Aside from its association with sexuality, it also suggests intelligence or even enlightenment (as in so many depictions of the Buddha or Shiva). Is it too

---

<sup>24</sup> Recent fossil findings indicate bipedalism preceded the spread of the savannah but it is still a good example of 'one of our evolutionary *exaptations*: 'Features that arose in one context but were later co-opted for use in another...' (Tattersall, 1998, p. 108).

<sup>25</sup> Usually considered as *H. habilis*.

<sup>26</sup> Just as it is central to many current religious rituals.

much to speculate that the external fire that produced so many survival advantages was mirrored by an internal fire of the mind?

The first seemingly incontrovertible evidence for the use of fire was found in the Zhoukoudian cave in China, dating from 500 kya. Also present were fossils of *H. erectus*, which gives us a species and a timeline. However, Johanson and Johanson (1994) note that fellow paleoanthropologist Bob Brain has found in the South African Swartkrans cave numerous animal bones that appear to have been burnt in a campfire. In the Johansons' opinion, these 'burnt bones at Swartkrans appear to be direct and dramatic evidence of fire, perhaps the first use of fire anywhere' (p. 168). Alert should be given that dating the first use of fire to 1 mya parallels the appearance of *H. erectus* beyond Africa into Java and the colder climates Europe and Asia (Scarre, 1993).<sup>27</sup> Could the mastery of fire have made possible such migrations?

But Tattersall (1998) notes that the control of fire is so rare in the archeological record that its use may have been opportunistic — still on the fearful side of control. He claims the first clear evidence of the regular use of firepits as hearths (in the first *constructed* shelters) can only be dated to 400 kya from the Terra Amata site in France of the species he identifies as *H. heidelbergensis*, the likely ancestor of both the Neandertal and Cro-Magnon. The later date increases the possibility of fire being experienced not just for its utility but for its relation to what has been called the sacred. Anyone who has stared into the dancing flames of an outdoor campfire, especially when others are silently doing so too, has felt an inkling what silent communion before a great mystery can be. How much more intense *their* awe would have been, lacking the rational carapace of ego-identity to withdraw back into! Such gathering around the hearth in the dark would certainly give a tribal centre to their experiencing and encourage the sense of community identity so necessary for the complex communications that intensify the interactive experience necessary to approach the symbolic threshold. Fire, like the sacred, has the uncanny aspect of drawing one closer while forbidding actual contact; it invites and denies. Immersion in it is the dissolution or sacrifice of worldly existence for the sake of a supernatural transubstantiation. For these reasons, fire must be recognized as a major threshold, the first real step out of the fireless Eden of animality.

The ability to make more deadly weapons by hardening spear points and root diggers in the flames is part of this threshold in more than one way. It no doubt helped create 'man the hunter' who could now go after bigger game and be less dependent on scavenging carcasses. Weapons could now be employed as missiles and no longer demand the dangerous close encounters of stabbing spears. Eliade (1964, 1978) has suggested that such the use of such projectiles opened the imagination to magical flight, such as is described in shamanic journeys of riding an arrow to other worlds. The guile and coordination needed to act as cohesive hunting units would also involve communication skills in the form of signals heretofore unnecessary. This sort of coordinated movement and signalling, along with the increased leisure time around the campfire af-

---

<sup>27</sup> There have been findings & new theories since these statements were written, but since paleoanthropology is not my focus, I will not attempt an update (see, e.g., d'Errico *et al.*, 2003, or Henshilwood *et al.*, 2001, on signs of campfires amongst Archaic *H. sapiens* in South Africa.)

ter a successful hunt, could easily have evolved into the primitive forms of dance and music, as mentioned above.

These activities around the fire, already extraordinary phenomena, seem very likely to coincide with the birth of the sacred (or the *awareness* of the sacred), so it is conceivable that preconsciously motivated ritual activity began at some point with *H. heidelbergensis*. The exact nature of such ritual unaccompanied by myth can only be guessed, but Cassirer, Eliade, and others have perceived that such ritual was ‘profoundly’ irrational, based in the needs, desires, and fears of the tribe — and such fears would have increased exponentially if it was *felt* the burning light had previously been the property of the gods or the source of life. Finally though, gathering and hunting at this time was unlikely to have broken entirely from scavenging and nomadism, so — along with the lack of ability or means for anything beyond gestural-iconic-indexical communication — there was not the ‘leisure time’ to transform such experiential invoking of the sacred into religious cult.

The problem with considering fire use and big game hunting as the advent of human consciousness, however, is that there is no indication of explicit symbolic activity that might have accompanied such among the species that precede or accompany *H. sapiens*. Without archeological markers that indicate such activity or at least a species-wide fossil record of rounded skull bases that indicate the fallen larynx necessary for complex speech, there is no reason to guess that the leap into reflective conscious experience has been made. Even the rare indications of human interment amongst the Neandertals are not necessarily signs of the symbolic imagination that would posit some sort of life after death.

Tattersall (1998, 2002) accepts that some few Neandertal burials have indeed taken place but notes that none of these have yet been located that contain the sorts of weapons, tools, food items, or ornamentation that might be thought to be useful to the deceased in the next life. Some remains are of individuals who would have been unable to supply their own basic needs so indicate some sort family or tribal compassion. The famous Neandertal ‘flower burial’ of Shanidar IV has since been convincingly repudiated in the *Cambridge Archaeological Journal* (Sommer, 1999) as the result of natural causes. The shallowness of other burials and the curled up postures could reasonably be interpreted as the simplest means of disposing of corpses that experience had shown soon become unpleasant company. Tattersall (1998) concludes that ‘it is difficult to sustain the notion that Neanderthal burial represented symbolic activity, as opposed to the simple expression of grief and loss’ (p. 161).

Earlier burials from our own species have been found in Israel ca 100 kya but the ‘ritual remains’ (boar jawbone and deer antlers) are so scant as to be open to interpretation, according to Tattersall (1998) — not to mention the fact that they are alone in that time period. No unequivocal evidence of symbolic grave remains appears in the record until the extravagant Cro-Magnon burial found in what is now European Russia 28 kya. By this period, the mythic mind of modern humans clearly makes itself evident, as Tattersall proclaims: ‘Nothing like this appears in the record left by any earlier humans.

Truly, a new kind being was on Earth' (p. 10). The question is, what occasioned this transformation?

Beyond posture, tools, fire, and simple interment, there is another candidate for the gate opener that made humans human, and it is related both to the sacred ritual and to the hunting of our prehuman ancestors. It is a powerful theory accounting for the epic ego inflation as well as the epic guilt that is so deeply embedded in our unconscious drives that we continue to carry out irrational actions,<sup>28</sup> including disguised rituals, at its altar today. I refer to the archetypal *cultural act* of killing, which later became transposed into sacrificial rites. Eliade (1978) claims that

the 'mystical solidarity' between the hunter and his victims is revealed by the mere act of killing: the shed blood is similar in every respect to human blood. In the last analysis, this 'mystical solidarity' with the game reveals the kinship between human societies and the animal world. To kill the hunted beast or, later, the domestic animal is equivalent to a 'sacrifice' in which the victims are interchangeable. (p. 5)

This is the view of 'man the killer' was first suggested by Raymond Dart in the early 20<sup>th</sup> century and popularized by Robert Ardrey (1966) and Konrad Lorenz (1966). More recently this thesis has been positively propounded as the foundation of culture by classicist Walter Burkert in *Homo Necans* (2002) and negatively approached as something to be cured by cultural consensus in René Girard's *Violence and the Sacred* (1979). As seen above, no less an authority than Eliade agrees that killing and blood sacrifice are natural and perhaps necessary stages in humanity's encounter with the sacred. Burkert agrees and demonstrates how early planting cultures subsumed hunting practices in the form of blood sacrifices.

Taking the opposite view from Sorenson's (1998) cuddling primitives in a pre-conquest paradise, psychoanalyst Wolfgang Giegerich seems to glory in our bloodletting. In his article 'Killings' (1993), he asserts that 'humanization came about precisely through man's killing activities. The birth of the Gods, piety, soul and consciousness, culture itself did not merely arise from the spirit of killing but from actual killings' (p. 8).

By this Giegerich means early hunting with weapons was 'unnatural' for our ancestors, no matter what species they may have been. The act was a decisive break with nature whose importance became underlined when human culture became more settled with pastoral or agricultural pursuits and still found the need for blood sacrifices to reawaken the shock of death. Such killing would have preceded verbalized mythic revelations, at least in the beginning, but its main purpose, according to Giegerich, was not to simply provide food but the 'more radical purpose of effecting the breakthrough into a qualitatively new dimension, that of the mind and the soul, of consciousness' (p. 10). This goes beyond Eliade who sees in such killing the creation of images that usually

---

<sup>28</sup> I call them irrational because they either predate the structural logic demanded by myth or continue to be disguised by what are essentially mythic rationalizations.



dwell in the unconscious. Burkert seems to have understood the sacrifice as an act of *continuing* our biological relationship with Nature. But Giegerich is clear: ‘The soul first made itself through killing. *It killed itself into being*’ (p. 12). Aside from the powerplay of transcending our own ‘human nature’, how could this act lead humankind into self-awareness? Because, Giegerich says, at this point the act of causing death and feeling horror with the victim will have engaged the existential crisis and exceeded the limits of purely biological experience:

For with this tremendous deed he logically broke through life’s boundary to death, by which boundary the living organism is completely enclosed; he thus inflicted the experience of death upon himself, *while* still in life, and made this experience the basis of his own, no longer merely-biological life. (p. 12)

These are powerful and disturbing suggestions, yet they are not unrelated to a second experiential explanation for the leap across the threshold into particularly human conscious experience. I refer to shamanism, touched on briefly above. Certainly shamanic journeys have provided images for subsequent mythmaking and thus expanded our linguistic repertoire, but shamans themselves, if modern research into the continuing phenomenon is any indication, have been the storytellers of their own ecstasies to the upper and lower worlds. According to Eliade’s groundbreaking work (1964), the shaman was so powerful and yet so feared because he or she went through death while still in life. The shaman’s initiation on a near universal basis involves the imagery of death and dismemberment — sometimes in form of sinking to the bottom of the sea or being eaten by ravenous beasts. S/he returns from this period only partially, now being considered a social outsider with one foot in the spirit world or (according to Abram, 1996) the wild world of Nature. It is unknown how shamanic journeys or ecstasies were first begun, but there is no reason to believe they were/are cultural constructions based in linguistic belief systems. It is a phenomenon that can be expected to far exceed in time past the lyrical images on Upper Paleolithic cave paintings that so strongly indicate long established shamanistic traditions. As expressed above, shamanism would be unlikely to be accepted amongst the roving bands of conservative *H. erectus*, but may well have appeared amongst prelinguistic archaic *H. sapiens* or the possible intermediate species of *H. heidelbergensis*. The cause of such errant inspired madness will forever remain unknown, but it seems more likely related to mushroom or mold ingestion or the smoke from unique weeds cast upon the fire than to such modern projections as epilepsy or psychopathology or painful life crises like starvation or isolation.

What has shamanism or killing to do with human conscious experience as we ‘know’ it today? Both are means of responding to the potential debilitation of the existential crisis — the undesired certainty of mortality. Either provides a way to deal with or *repress* unacceptable conclusions derived first from immediate perception and secondarily by the ability to abstract one or two steps to apply such perceptions to oneself or, more likely, to one’s group or tribe. In short, the crisis is knowledge that death always comes to our prey and to ourselves, *even if we can postpone it*. Ritual sacrifice hints at, if not control over, at least participation with the forces of darkness that bring death. Shamanism is evidence that some few, the ‘specialists of the sacred’, can transcend the boundary of death and even return lost souls to their owners. Such killings

and such journeys were means of repressing such intolerable knowledge by seeking to identify with the invisible destroyer.

Eliade (1990) noted his thoughts on this matter in his private journal. It is such a fully *realised* statement I have been unable to edit it for brevity:

The role of the shaman appears even more decisive in what we could term the *experiential knowledge of death*. The shaman learns to know death in the course of his initiation, when he goes for the first time into the underworld and is tortured by spirits and demons. After initiation, he knows how to descend into Hell, in order to search for the soul of the sick man (stolen away by demons) or to guide the souls of the dead to their new abode — and he succeeds in reaching there and returning to earth because *he knows the way*. The ecstatic experiences of the shaman have contributed in large measure to the establishment and articulation of a mythical geography of death, together with a mythology specific to death. ... To *see* and to *describe* the conditions of postmortem existence reduces the terror of death. ... Thus, the unknown and terrifying world of death *takes form*, acquires a structure and even a geography. The infernal personages become *visible*; death is equated with a rite of passage into a new mode of being, a 'spiritual' one; that is, it ends by constituting an *initiation*. (pp. 180-1, from undated notes, 1952)

In the cases both of blood sacrifice and shamanic journeys, life is affirmed even in the face of its inevitable end. Either or both of these activities — which share the encounter with the impossible conception, death, and an overwhelming sense of hidden powers, the sacred — are likely intensifiers on the last pitch toward the unknown summit<sup>29</sup> of symbolic self-realisation, but neither constitutes the threshold in itself. It should be noted that both continued and even thrived after the summit was attained or threshold crossed. Blood sacrifice and shamanic trips continue even today, though most often in forms disguised by the culturally imposed rationalizations of the conscious mind and the traditional institutions of society.

But until such primordial actions as the above became anything more than emotional responses to the dimly conceived horror of killing other bloodletting creatures or the unnamed terror of *realising* death comes to all who are born, something more was necessary to give these feelings form and even transmute them into the hope and awe that are the beginnings of religion and the creative encounter with the sacred. As I trust has been shown, experience itself had already departed from the 'merely biological' and spent a few million years of slow intensification in the *no-man's-land* of the family Hominidae with evolutionary false starts and dead ends toward the sudden transmutation of that insatiable experience into an awakened world of image, symbol, and myth.<sup>30</sup> It is only with myth in its first spontaneous stirring that we enter the realm of consciously

---

<sup>30</sup> Again, 'summit' is not meant as a value judgment but only as metaphor for an unforeseen and sudden change of state.

<sup>31</sup> And again, this in no way is meant to imply that evolutionary processes are directional or predetermined; only that on the bush of life that somehow led to us, increasing complexity, better cognition, & more elaborate means of communication proved to be advantageous.

apprehended experience,<sup>31</sup> that is, experience made conscious through its transformation into metaphor and story, a transformation that required the corequisite transformation of facial, gestural, protolinguistic communication into the fully fledged self-referential system that earns the name ‘language’.

## §5. Approaching the Existential Crisis

Once understood that only humans can build a symbolic system and confront their own life experience in time, it can be *realised* that humanity has had to face some disturbing truths. There surely could be no more disturbing fact for any healthy animal to contemplate than that of its own mortality; luckily only one animal is faced such an overwhelming burden. *Such a revelation of the hopelessness of the struggle can conceivably be so disturbing that it threatens to overwhelm the fundamental survival instinct of a whole species.* If this is the case, any response against such despair is a response toward life maintenance and, therefore, can be considered within the paradigm of evolutionary adaptation — for there are many other aspects of myth, ritual, & metaphor that appear as direct negations of the drive to survive and perpetuate one’s genomic code.

Such an existential crisis is reserved for humans. The enormity of this situation cannot be overemphasized. This crisis is the very torrent that runs through the chasm between human and nonhuman experience, and it is the key to understanding humanity’s entrance into the symbolic realm of language, myth, and culture. Though evolution itself cannot be described as a force, it is the imperative to survive within the heart of every creature, often against impossible odds, that is the driving force within the evolutionary mandate. The basic instinct to overcome and live at all costs need not be selfish, of course, for it is also seen in such things as maternal protection of the young or the defence of the group by hearty younger males. The life crisis that arises with the realisation that the struggle to survive is always doomed to failure can only be cataclysmic. From our position as advanced and complex cultural beings who matter-of-factly surround all natural crises in layers of formalised routine, it is difficult to comprehend how hair-raising the slow dawning awareness of the unavoidable inevitability of dark death might have been. That this is an especially fertile area of speculation for understanding ourselves is made clear when we appreciate that this *existential crisis was concomitant upon the also dawning awareness of oneself as a unique experiencing entity.* Indeed, the two must be impossibly entwined in origin: One feels the wonder of becoming conscious of oneself as an existing, experiencing being and of others as similar such beings even as the wonder of the moment is umbered by its cause: death comes to all — even ‘us’, even ‘me’. One *realises* that one is a living entity the moment the dark mirror of death forces such a reflection upon us. Egocentric consciousness is the polarity of death consciousness, each inside the other: The self is founded with death at its core.

Speech and narrative are finally the means by which we enter into the subjective experience of time, which includes the awareness of the mortality of selfhood and the

---

<sup>32</sup> Terminological difficulties must again be noted, for, though conscious, this is not yet true ‘self-conscious experience’ in the individual sense, though it may qualify if ‘self’ is generalized to tribe.

disturbing sense that one had a beginning ‘once upon a time’, a while ago in the past. Such uses of language demonstrate why this existential chasm has also been described as the symbolic threshold (Deacon, 1997; Percy, 1975); notwithstanding, there are good reasons for the educated guess that this realisation was not initially thought out but was instead an emotionally-charged apperception. First of all, sites of ancient hominid burials have been discovered. Such sites do not prove the knowledge of death’s inevitability, but judging from the exquisite ceremonials involving the adornment and placement of the body as well as the addition of all sorts of flowers, jewelry, and artifacts that accompanied such ritual interment, there is more involved here than fond farewells. The individual tribal member must have felt some sort of stake in the funeral participation — at times to the point of self-sacrifice (or being *chosen* for same) to accompany the deceased on the journey into the afterlife. By sending off the corpse and attendants to a spiritual afterlife, the community itself felt renewed and secure in time.

The time that formal language (FLN) emerged remains a subject of volatile dispute with some insisting that nonhuman animals have languages of their own with the more serious debate between those of the early or late school of hominid language origins.<sup>32</sup> Richard Leakey (1994) imagined *Homo erectus* (ca. 2 mya - 100 kya) conversing freely. However, though not denying the existence of advanced systems of communication and even the rudiments of iconic language before *Homo sapiens*, it seems the balance of authority has shifted toward the *sapiens* hypothesis — especially when one adds that only some form of writing, i.e., visual recordkeeping, could allow language to concretely *appear* so it could be perceived in the world then conceived as an object, thus allowing humanity in the same way to conceive of its own objective existence (see note 9).

Philip Lieberman (1998) claims that *Homo sapiens neanderthalensis* (200 - 25 kya) had what it takes, though its successor, archaic *H. sapiens* (ca. 100 - 150 kya), had significant speech-oriented improvements.<sup>33</sup> The move toward an even more recent origin by identifying formal language forms with complex symbols and iconic representations was given a boost by William Noble and Iain Davidson (1991, 1996) who made a study of cave art and prehistoric sculpture and concluded that languages can be traced back with certainty only about 32,000 years. Others who generally agree may now go somewhat further back, perhaps to do with wider acceptance that the ‘petroglyphs (rock engravings) found at Panaramitee [Australia], around 45,000 years old, are the earliest known examples of rock art in the world’ (Scarre, 1993, p. 45) and the discovery of the Chauvet Cave in France, claiming the oldest known paintings in the world at over 30 kya (Chauvet, Deschamps, & Hillaire, 1996). Henshilwood *et al.* (2001) have found rock incision patterns dating from more than 70 kya in South Africa, though their symbolic ref-

---

<sup>32</sup> ‘I mean language in the following very generic sense: a mode of communication based upon symbolic reference (the way words refer to things) and involving combinatorial rules that comprise a system for representing synthetic logical relationships among these symbols’ (Deacon, 1997, p. 41). Deacon allows these ‘core attributes’ apply to music, mathematics, rules of etiquette, etc. but not to animal communication — which may be infinitely more complex yet still not fulfill the requirement of symbolic reference. More on this in the next section.

<sup>33</sup> Lieberman assumes that the quality of stone tools & brain size equate with the piecemeal emergence of language. He apparently ignores or does not *realise* that most specialists agree there can be no partial formal language or that even a protolanguage is not much more than a collection of names.

erence remains mysterious. Keeping in mind the close relationship between image and symbol, between rock art and symbolic representation (as part of the larger process of symbolic interaction), it can be seen how important the final determination of such rock scratchings can be. If the scratchings once held a *meaning*, existence was becoming conscious of itself. Narrative had succeeded the mere guttural-gestural nominatives of protolanguage (Bickerton, 1995). The human life story had begun and the mythic mind was telling it.

Robin Dunbar (1998) is among those arguing for a more recent invention when groups of our species became so large they replaced grooming with gossip. Donald Johanson (1994), the paleontologist who discovered Lucy, suggests that language may have led to ‘some kind of neurological leap forward, a biological re-wiring in the brain 40,000 or 50,000 years ago that enabled humans to manipulate culture and the environment in a way — and to an extent — never possible before’ (p. 302). Christopher Wills (1993) suggests that more than ‘re-wiring’ is conceivable. After giving evidence for morphological evolution within our own species, *H. sapiens sapiens*, he states it ‘seems not improbable that brain evolution has taken place as well’ (p. 303), major changes indeed. These are among the reasons I find the thesis of Ian Tattersall (1998, 2002) to be the most compelling. For him, the confirmation of a creative surge in late modern *H. sapiens* (aka, *Homo sapiens sapiens*), fundamentally as seen in western Asia and amongst the Cro Magnons of Europe, is the first prehistoric time frame in which we can be certain of sophisticated symbolic exchange — language — taking place. These humans were just like us physically, and they also had art, religion, and a social structure. Not only did things have an indication or name, but they had an existence, perhaps even their own story in that they symbolized something beyond their mere material existence. With symbolic meaning, we have the precursor of writing. With proto-writing, our mythmaking begins; we now can tell the story of the things in the world, how they came to be and what they really are. Myth, mind, and language awaken together with life-charged animistic presence.<sup>34</sup>

Before this time, as surmised above, there was only a protolanguage of corporeal gesture using hands, eyes, posture, and even vocalisations — a limited vocabulary of names for concrete, present (non-abstract) entities would be indicated by sound-gestures. The things thus indicated likely remained *things*, that is, just what they are in the material, real world. Something is needed to link these sound-gesture names into a pattern that draws upon other parts of speech and phraseology to indicate the long ago and far away, as well as the invisible-but-present and that which is yet-to-come. In other

---

<sup>34</sup> Steven Pinker (1994), language maven of M.I.T. and a proponent of evolutionary genetics, insists that culture is too multifaceted to be used for dating the origin of language: ‘It depends on there being a single “symbolic” capacity underlying art, religion, decorated tools, and language, which we now know is false’ (pp. 353-4). It is false, he claims, because the isolation of certain neurolinguistic afflictions like Williams syndrome reveals the brain’s intrinsic modularity. ‘Chatterboxes’ (Pinker’s term for victims of this syndrome) are often extraordinarily articulate while also being grievously impaired cognitively. Similarly, his neurogenetic assumptions lead him to believing that the evolution of the ‘language instinct’ is so distinct it has little or nothing to do with thinking. Deacon (1997) dusts this all away with his proposal that language, brain, and culturally-influenced mind *co-evolved*, Baldwin style, so there should be little wonder that, over time, generalized neural nets of symbolic activity became specialized into modular subdivisions.

words, for nominatives to become narratives, formal language was needed. Many agree that the inexplicable birth of the ‘deep structures’ (Chomsky, 1975) of syntax are what allowed phrases, sentences, themes — in short, narratives — to transform protolanguage into formal language.

With the beginnings of FLN language visible as markings, *out there*, in the world, one could *hold* an idea in mind because it was concretely sensible and others could share in that same idea. From that basis, the human impulse *to know* or *to change* would unconsciously use the innate computerlike codes of biological functioning to expand the thought *held* by concrete reproduction into the next, until speculation would explosively grow like the fulsome Tree of Life (or a spreading mushroom cloud).

As I have argued above, one of the first compulsions of awakening humanity was to deal with the existential crisis — inevitable death, suffering, and the loss of loved ones (not to mention the mystery of birth) — and in that compulsion is my theme that the sacred needed to *realised*, that myths needed to be made, so language *needed* transformation into narrative. A fundamental narrative structure is certainly kept functional by largely oral cultures (Havelock, 1986; Lord, 1960; Ong, 1982), but it is only with recorded narratives that cultural memory achieves continuity and stability (not to mention hierarchy, aristocracy, and oppression: see Barthes, 1972; Kolakowski, 1989). With some method of recording or indicating the mythologem, shamanism moves literally into the realm of cult, the sacred into ritual, myth into liturgy.

Still, until the language can be found to narrate the symbol or the experience of ritual, we cannot merely assume a mind aware of itself. Myth, as a term, after all, derives from the Greek *muthos*, ‘word’ (traceable to the Indo-European root ‘mu-’ that is also, suggestively, the likely source of mute, mime, memory, and mystic, and mystery (Watkins, 1982). Cassirer (1946b) has fortified one of my themes by stating that this interstitial period of powerful emotional awakening, activity, and transformation from the unreflecting feelings of nonhuman animals to the emotional realisation of the existential condition that becomes concept through myth (including the emotions of ritual performance) is likely more a dreamtime of human preconsciousness than one of fully conscious experience: ‘We may and must, indeed, continue to speak of the mechanism of emotions as a “psychic” mechanism. But psychic life is not to be confused with conscious life. Consciousness is not the whole; it is only a small and vanishing fraction of psychic life; it cannot reveal, it rather masks and disguises its essence’ (p. 30).

We see in ontogenetic comparison that human beings obviously feel before they think. It seems that emotion underlies conception and cognition, as Greenspan and Shankar (2004) have convincingly shown, just as ritual often precedes myth. The move from emotion to thought is still happening and may extend indefinitely into the past. So my thesis here is not dependent on the exact time or place of language origin. This admittedly cannot be known and its origins, lost in time as they are, may have been dispersed throughout many times and places.

## **§6. The Symbolic Crossing**

Now it is widely accepted that nonhuman animals live their lives episodically, that is, aware of and responding only to that which is immediately present to their senses. Do they live in the eternal now? Not quite, it would seem, though their sensory immediacy must be much more intense and vital than ours, cognitively time displaced to an unprecedented degree as we are. Abram (1996), building on Merleau-Ponty, has made this case: ‘For meaning, as we have said, remains rooted in the sensory life of the body’ (p. 80). Lakoff and Johnson (1999), and others of the primary embodiment school, have revealed how the foundations of our cognitive time displacement are in our bodily, sensory experience. However, we must recognize that even the reality-building that perception allows, different realities for each species, still takes time. It also takes time for the sensations of the perceptual organs to mingle with memory to build representations from whatever *things in themselves* are really out there or whatever archetypes are really in here. In other words, the actual present can only be experienced by psychic immersion in it. Along with the lack of extension in time, in itself, the actual present can have no form or substance, no extension in space. It is indeed the time of beginnings, the sacred time when gods walked among people, when all things were possible — *in illo tempore*, as Eliade called it.

Still, given all that we know of our isolated private selves (and some say that is all we really do know), it must be wondered how archaic humans could transcend such private subjectivity to improvise rituals and myths in the first place. It must be understood that until shamans became charlatans and prophets became priests, rituals were likely subject to new input — ongoing alteration through inspiration — just as myths change in each telling according to circumstance.

The acceptance of such changes in the realm of the sacred would take more than the archaic equivalent of an edict from Rome, i.e., more than a pronouncement from those in power. Each revelation or inspiration must have been felt by everyone, to one degree or another. The *participation mystique* of each body in the tribal mind made it not only possible but inevitable that the experienced truth of the sacred, as manifest in myth and ritual, was self-evident. It was self-evident because they all felt it, together. Who still doubts that in the mists of prehistory, the tribal mind precedes the birth of individual ego consciousness? The point here is that the reality of the *mythosphere* (Teilhard de Chardin, 1959), of the tribal and totemistic mind, also reveals the primacy of intersubjectivity.

Intersubjectivity is a term open to many meanings but the way it is intended here is to imply something more than mere communication from isolated mental monad to isolated mental monad. There is a good deal of evidence that one of the early effects of emerging language, both phylogenetically (in the human species) and ontogenetically (in the individual) is to create a sense of mutual identity among those using it together. Language, after all, is a group phenomenon. It is not possible without at least two interlocutors, though many are preferable. Until one can skillfully use language from a point of self-reference, there are no other points of origin perceivable *except in the minds of others*. One thus identifies with those others before one learns to identify one’s self as oneself. (And for tribal persons, learning to identify one’s own private self is often a temporary or even taboo condition as it leads to doubt and selfishness.)

Of course, we are each corporeally unique. Participation in the symbolic world of language, however, takes us beyond our unique embodiment into the mystical participation of the group, into intersubjective awareness. Percy (1975), for example, sees conscious experience as evolving neither from third person materialism nor pre-existing in first person spirituality. He writes that ‘there has come into existence a relation which transcends the physico-causal relations obtaining among data. This relation is intersubjectivity. It is a reality which can no longer be understood in the instrumental terms of biological adaptation’ (pp. 271-2). One might call intersubjectivity the second person perspective, ‘I am you’ or ‘thou art that.’ This is likely beyond nonhuman animal experience but previous to the isolated Cartesian subject assumed to always be present in some form by psychologists.

Instead, *primary intersubjectivity* (Gallagher 2001) begins with a core self that only knows relationship before it learns to be isolated. However, I cannot conceive of a relational *entity* dwelling in the interstices between communicating bodies so I agree with Lacan (1977) and later phenomenologists like Merleau-Ponty (1973) in taking the step of assuming the initial *identification* with others, usually the primary caregiver(s), — obvious in the case of the fetus in the mother but continuing for the infant. Identification avoids the implication of the term intersubjectivity that already existing individual subjects are simply interrelating. Primary identification is mystical (since it transcends its bodily source) participation with the tribe or even with the world. It begins even before language acquisition in the sensuous life of the intermingling tribal bodies. Though aggressive, warlike cultures have by now destroyed or isolated the remaining physically bonded cultures, there is strong testimony in the literature for the existence of the *innocent* tribal mind, a shared identity that refuses individualism.

Perhaps especially among such empathically-united groups, the inexorable but invisible presence of certain mortality would have been as destructive to their cultural integrity as the all too visible but just as inexorable arrival of aggressive, non-empathic global ‘conquistador’ consciousness. As discerned by Sorenson (1998) and a great many other anthropologists, the death most feared is not that of one’s own body but of the protoconscious identity comprising the family, tribe, and the environment, experienced as concentric circles of self. In so far as the primitive and the child identify with the world, it makes little sense to say they fear their own death. Crapanzano (2004) has asked, ‘[Can we say that] the terror of death is a substitute for the terror of world-ending? Is it less our own dissolution than that of the world — our intimate and perduring connection with it — that terrifies us?’ and concluded, ‘The most frightening of nightmares is to be absolutely alone — deprived of all context, human or material’ (p. 202).

It’s true that the cycles of Nature — the waning then waxing of the moon, night vanquished by the dawn, spring following winter, the rainbow after the storm, and in general life emerging from death — must have been simultaneously perceived, perhaps leading to unbearable stress as the Great Fear was confronted with the as yet unfathomed Great Hope. But the hopeful metaphor of the unity of Nature with its compelling cycles of *eternal return* was yet just beyond the reach of a conception that would make cosmos and deity. One small step that was also an unwonted leap into an unex-



plored *parallel universe* of human be-ing (well beyond in importance any small step later taken onto a dead moon) was required to unite these antinomies in a new world beyond the symbolic threshold.

To approach such a threshold after which ‘nothing will ever be the same again’ is to reject one’s current life: to accept certain death and only possible rebirth. As the ultimate origin of language, religion, art, ethics, and all higher cognition, it seems to be true after all that, as Wallace Stevens (1923/54) famously wrote in ‘Sunday Morning’:

*Death is the mother of beauty; hence from her,  
Alone, shall come fulfilment to our dreams  
And our desires. (V: 3-5)*

The ‘fear and trembling’ of the soul in the face of death is compressed in its hermetic incubator until its transmutation bursts its vessel asunder. A threshold like this is in fact the archetype of initiation that Eliade (1954) saw as the basis of consciousness in archaic humanity.<sup>35</sup> Those who brought on such a magnificent breakthrough must have undergone what sacrificial rites always aim to cause or what the shaman underwent as an individual: initiatory death and rebirth. Once the threshold is crossed, there is no return. The bridge, as it were, has been burnt. The philosopher of symbolic forms, Cassirer (1944) observed that ‘man is in a sense constantly conversing with himself. He has so enveloped himself in linguistic forms, in artistic images, in mythical symbols or religious rites that he cannot see or know anything except by the interposition of this artificial medium’ (p. 25).

Again, the key to human speech and intersubjective human being is *symbolic self-reference* wherein symbols of language and other creative systems expand the system by going forth as conceptual constructions derived from their experience of embodiment and world; symbolic self-reference is not enclosed within the garrote of the hermeneutic circle, but concentrically open. The inherent syntactic creativity of most human sentences and the symbolic reference to concepts (not *representations*) are enough to set human language apart from all other modes of communication, but linguist R.L. Trask (1995) offers four further closely related ‘design features’ of the FLN (Faculty of Language Narrow), modified from Hockett (1960), and demonstrates that only human language has them: duality, ‘the use of a small number of meaningless elements in combination to produce a large number of meaningful elements’ (p. 3); displacement and open-endedness (too closely related to separate), the former is the ability ‘to talk about things other than the here and now’ (p. 5), and the latter is the fact that nearly anything can be said.<sup>36</sup> A corequisite of these two is another kind of displacement, that of the speaker from the spoken, though for the first speakers such displacement would have been subliminal. The last is stimulus-freedom, the power to choose how or if one should

---

<sup>35</sup> Such initiatory cycles – death, isolation, transition rebirth – continue less obviously in the present, according to Eliade.

<sup>36</sup> Benson *et al.* (2002) claim Kanzi demonstrates these; perhaps, but in a highly restricted manner. Semantic creativity requires that the whole constructive system be active: a change in quality or *kind*, not degree.

respond to a received stimulus. Trask concludes: ‘Lacking duality, lacking displacement, lacking open-endedness, lacking stimulus-freedom, animal signalling systems are almost unfathomably different from human languages’ (p. 11).

Bickerton and others take their stand on syntax but this word simply means grammatical structure; other clever animals exhibit elements of this as well. But, note, human syntax is *open-ended*, and I argue that its breakthrough was made as essential as air by the human need for meaning, that is, *semantics*. Syntax is the support structure for semantics; semantics (meaning, or the desire for meaning) is that which called forth syntax. For Chomsky (who is unlikely to agree with my proposals), what makes human language absolutely incomparable in kind to any other communication system is its quality of *recursion*, but recursion leads to the same thing I have been outlining above through creative symbolic self-reference.<sup>37</sup> Recursion refers to the infinite extension of sentences, clauses, and phrases embedded within language, but this image can be turned inside out, as I do here, to suggest the expansion of language space and thus the discovery of a supersensory world in the palaces of the imagination. Imagination, i.e., the power of image making, may be a quality of existence itself and thus beyond the merely human, but the human, semiotic sort of imagination begins and takes wing only with the help of certain linguistic qualities like recursive expansion, displacement, and open-endedness, while continuing to be driven by the need for meaning, semantics.

A syntactic infrastructure does not limit imagination but enables it by granting the power to reconfigure perceptions and the chaotic images of memory into imaginative narratives. The work of linguist Ferdinand de Saussure (1959) around the beginning of the last century gave the first structuralist vision of language in which linguistic signs get their meanings from differences among them alone and their context in words, phrases, etc. on up to the total system itself. Without going into detail in what is a complex theory, the linguistic *sign* consists of the relational identity of the *signified* — not the object but the concept of such an object — and the *signifier*, the impression of the sound or graphic image. It can be seen that objects in themselves are excluded from language (though they remain in the background as time-displaced referents).

Protolanguage may have used sounds as pointers to objects or events but formal language transposes such sounds into one aspect of the sign, which now ‘points’ only toward the openended network of the symbolic. As Bickerton (1995) states: ‘No Rubicon of thinking whose crossing could have led to this staggering change in human fortune seems half as convincing as the move from an unstructured, restricted, pidginlike protolanguage to the syntactically structured, infinitely recursive richness of true language’ (p. 63). Syntactic structures emerged as the ‘universal grammar’ that stabilises the production of ideas by linking them together, yet not limiting their potential for expansion.

## §7. The Prehistoric Moment

The prehistoric location and timeframe of this momentous event, as indicated above, is likely to have occurred some thousands of years before the ‘creative explosion’

---

<sup>37</sup> William von Humboldt stated that language ‘makes infinite use of finite media’ (in Pinker, 1994, p. 84).

(Pfeiffer, 1982) of Cro-Magnon left clear archeological evidence.<sup>38</sup> This remains controversial as a number of other explanations can be conjured to explain the appearance of new technologies, food sources, living arrangements, ritual activities, musical instruments, and, of course, the arts of sculpture and cave painting. Linguist Bickerton (1995), looking at the situation from the other side, asks, ‘Is it conceivable that any group of hominids could have had 65 percent of modern human language or 85 percent of modern human language and still gone on, millennia after millennia, with zero percent change in the way they lived?’ (pp. 69-70) Perhaps his suggested 0% is a slight exaggeration, but if you accompany children through a museum of prehistory all the fabulous improvements in stone technology over many millions of years claimed by paleoarcheologists go by without much notice, but when the remnants of the Cro-Magnon visions are exhibited, they instantly awaken. No amount of specialist rhetoric can hide the fact that something utterly unprecedented occurred in prehistory — in one place at one time — that became evident in western European caves and carvings.

Beyond the geographic location or the time frame of the crossing of the symbolic threshold, a more to the point question might be: Just how long did the actual crossing take? Did humanity come to imagine the far beyond and move into the grasp of syntax overnight or over many millennia? Related to this is the question of whether the birth of imagination and the origin of language resulted from the evolution or mutation of the brain, or from cultural invention. Anyone who has read this far will understand where I stand. Despite the fact that such an awakening to the symbolic potential of vocalising would necessarily have had significant accompanying neural activity, it is highly unlikely that the symbolic crossing was also a moment of actual genetic mutation (macro or micro), the theory favoured by Klein (2004) and others who cannot accept that cultural breakthroughs could precede biology. If such took place, it would have had to have happened many millennia before the breakthrough to human understanding. The brain and the physiological mechanisms for speech would need to already have been in place. Though not yet attuned to *other minds* within the intersubjective matrix necessary for abstract conceptual construction, the instruments of more articulate sound production in each individual must have been *ready*, so to speak, waiting only their call into action. If there were a propitious random mutation — whether saltational or related to the punctuated equilibrium theory of Eldridge and Gould (1971) — it would likely have signalled the emergence of *H. sapiens* (ca. 100-200 kya), who at first would have been a geographically isolated ‘daughter’ subspecies of a larger ancestor species.

Certainly an improved ability to communicate in ‘prehistoric pidgin’ (protolanguage) would have proved evolutionarily advantageous. It seems quite sensible to speculate that archaic *H. sapiens* began to expand his repertoire of mimicry and gesture with a greatly improved ability to make a wider range of oral sounds. Whether cerebral capacity increased first from an existing need for greater complexity of communication or whether something like a mutation in the placement of the larynx occurred first (allowing for greater breath control and an increased likelihood of choking on our food) fol-

---

<sup>38</sup> I suggest these appear several thousands of years later because, as is known from Ancient Greek sources, sculpture in stone and wall paintings or mosaics were preceded by millennia of images carved or depicted on impermanent materials that left no record.

*lowed by* cerebral adaptation must remain unknown. They may have co-evolved, as Deacon (1997) would have it. In any case, such breath control could have led to a greater complexity of vocalization as such control was extended to the movements of the lips and tongue. This evolutionary change in the physiology of communication would likely allow for some degree of increased cultural complexity over tens of thousands of years (specifics varying from tribe to tribe), but at this point such communication would only have been a tool to serve the basic needs or instrumental ends in the here and now. The displacement from the here and now, the abstraction of self from world, the power to create-discover images and give them form, the sense of a sacred reality — these were yet waiting in the wings.

Language — in the formal sense of symbolic interaction (followed by *reference*) and, beyond that, of seemingly limitless expansion *into the blue* (since almost anything can be said or thought) — cannot begin its imaginal construction into the abstract *until a complete network of syntactic structures is in place*. Without such foundational structures ideas or concepts cannot be combined or spliced (Chomsky's *merge and displace*) to create new ideas or concepts that make no direct reference to the concrete world of the embodied senses or the environment. This explains why there are no partial languages ('proto' does not mean 'partial') since for abstract concepts to have meaning, they must be already embedded within a larger meaningful system. How else could ideas or words employ other ideas and words to build new ideas and words? Iconic 'words' that only indicate concrete actions or objects in the here and now can never *get off the ground*, that is, they cannot create new sentences from previous sentences to expand on a theme. If partial FLNs are not possible, than a self-referential language code or system cannot be built bit-by-bit. It must begin as an emergent system already functional with the potential for expansion. Such emergence can only take place *all at once*, in a momentous efflorescence.

To discover a mythic cosmos meant that the syntactic undercarriage already had to be present as a complete system. You cannot build a cosmology with a partial syntactic structure any more than you could build a bridge without a consistent structural support system. The various properties that in a momentary concrescence created recursive syntax may have been evolving for millions of years each on their own but in the service of other biological functions. The parts of the bridge may have been made elsewhere then brought together to make its structural support system. Until the entire bridge is complete, however, it is useless. Only with a complete bridge can the crossing be made, and that completion occurs in a single identifiable moment. In the same way, human recursive speech cannot appear until its substructure is in place, and that completion is sudden. Unlike the bridge, language is an emergent, its possibilities not indicated in its substructure. *Language in the human sense, formal language, is not reducible to its parts.*

This then is a first point that needs emphasis: Even if the journey to this transformation of experience is seen as a slow rising exponential curve, there is still an apex, the point of transition. No matter how slow or long the climb up the hill, no matter how many returns, pauses, dead ends, or turns toward other hills to ascend, this particular hill is only crested once — *in a moment* — for the first time. This has been noted by any

number of linguists and theorists of the symbolic but is usually mentioned as an aside, as though the very idea was too bold to bear scrutiny.

Structuralists begin with the assumption that language creates a parallel reality of its own. A few, like anthropologist Lévi Strauss have stressed that ‘language could only have been born in a single stroke. Objects couldn’t just start to signify progressively. After a transformation..., a passage was effected from a stage where nothing made sense to another where everything did’ (in Kristeva, 1989, p. 46).

Saussure, the founder of linguistic structuralism, simply avoided questions to do with the origin of language claiming they were of no relevance, but he must have been aware of the irreducibility of his own theory. It is well known that the Linguistic Society of Paris once banned all discussion of the topic of language origin because such knowledge was thought beyond reach. The poststructuralist movement (if it can be called such) certainly agrees that language creates a world of its own, but leading poststructuralists have no comment on how precipitant this creation must have been since it is doctrine that we can know nothing outside (or before) the text of our language-world.

Chomsky (1975) has similarly avoided questions to do with the evolution of language but has intimated that the innate ‘universal grammar’ that enables all formal languages could not have gradually evolved but might have resulted from a sudden neural mutation. Recently, along with two Harvard biopsychologists (Hauser, Chomsky, & Fitch, 2002), Chomsky maintained his view that the evolution of language was saltational, not gradual, though here he accepts *exaptation*, the view that ‘important aspects of language have been exapted from their previous adaptive function (e.g., spatial or numerical reasoning, Machiavellian social scheming, tool-making)’ (p. 1570). Exaptation supplies an evolutionary sound explanation for the sudden discovery of the FLN as expressed in the facility of speech. Bickerton (1995) agrees that ‘a wide range of evidence ... has suggested that the evolution of syntax was ... likely a single catastrophic event’ (p. 82).<sup>39</sup>

Beyond linguistics per se and structuralism, Tattersall (1998) also endorses the evolutionarily sudden and recent awakening to a symbolically enlarged universe as the zenith (or nadir?) of the journey begun toward self-awareness with the earlier speciation of *H. sapiens*. Like Tattersall, the Johansons (1994) see that symbolic art, language, and conceptual cognition are evolutionarily simultaneous. The Johansons quote the Australian archeologist and aboriginal cave explorer Rhys Jones as agreeing with the suddenness of the awakening of our species: ‘My guess is that we will very quickly be able to establish that early on, whatever early is, the whole lot was there. Bang. They were us. And before that they weren’t us; they were something different. Then something decisive happened’ (p. 306).

---

<sup>39</sup> There are certainly exceptions among linguists. Pinker (1994) stays with incremental evolution; Kristeva (1989) agrees with the timeline here but suggests that the graphic image preceded the vocal; Claude Hagège (1990) postulates a ‘multiregional’ language origin in which speech was discovered in various times & places by different humans — thus no ‘first language’.

What situation brought about this symbolic potential? It may be the organism's natural response to humanity's first cognitive crisis, a crisis so profound that the organism was thrown back upon its elemental resources: Hauser, Chomsky, and Fitch (2002) note that 'the human faculty of language appears to be organized exactly like the genetic code itself: hierarchical, generative, recursive, & virtually limitless with respect to its scope of expression' (p. 1569). The existential crisis (the crisis of motivation brought on by the peripheral observation of inevitable mortality) didn't create syntax on the spur of the moment *ex nihilo*. It is a tenet of systems and 'chaos' theory that when any system enters a crisis state, its organization will begin to degenerate or it will transform into a new system through 'emergent evolution' (*cf.* Pattee, 1995). In the case of emergent syntax, the genetic code itself provides the biological template.

Further, restless humanity never remains in any particular state. The first speakers could not have possessed the understanding that they were *signifying*. This thesis will be difficult to accept for many today since we, as a result of cultural change, have come to conceive ourselves as distinct from the symbolic network that called forth our self-sense in the first place. In fact, we often mistake language as but another tool for the pre-existing self to use to interact with other such selves. The first speakers could have made no such distinction between self and speech, so were not in that sense self-conscious. They did not experience speech at first as being consciously asserted but more likely felt themselves drawn with others into the world of symbolic forms where words and phrases seemed communally received and intersubjectively expressed.

Without differentiating world from words, such early exchange had the same reality as anything else. Julia Kristeva (1989) has stated that for such prehistoric groups 'language is a *substance* and a *material force*. ... [The 'primitive'] does not *know* this act to be an act of idealization or of abstraction, but knows it instead as *participation* in the surrounding universe' (p. 50). She suggests that part of this materiality of language is indeed material, that is, etched symbols as the beginning of writing and imagistic expression.

The conscious quality of experience from our position within symbolic reality seems a continuous state, but that is only because we are not conscious of the dimming of consciousness. Experience brightens into conscious apprehension and dims back from such apprehension many times throughout each diurnal cycle, but we who think *all the time* maintain at least minimal steady state self-awareness. But the first speakers had to learn the code before they could practice it alone so it is doubtful that silent thinking appeared before writing. (Even then reading was apparently always vocalized, silent reading not appearing until the Middle Ages, according to Illich, 1993.) Silent thinking is basically an inner *dialogue*, talking to oneself, dividing the self and creating within a speaker and listener, the concepts apparently going from the former to the latter. This would be a sophisticated advance for a self still so rudimentary that language seemed to arrive from sources beyond it and become manifest only in conversation or communal signifying. Dialogue and dialogic must have been previous to and a cause of the recognition of the private subjectivity involved in speech assertion (Dewart, 1989), so independent, private thought was literally *inconceivable*.

Gallagher (2001) is correct in positing a primary intersubjectivity from which individual subjectivity emerges. Such group speaking and listening, then, involves the features of identification or empathy and mimesis already mentioned as linguistic prerequisites — but it also implies that the only conceptual expansion possible in that first era was *when speech was spoken together*. Thinking and imagining, in this situation, were aloud and communal. This implies that speech, though asserted by individuals, was experienced as a communal phenomenon, perhaps a gift or act of grace arriving from mostly beneficent deities.

This situation means that early human symbolic consciousness was not a full time engagement. The Rubicon may have been crossed, but it continued to exist in its own curious timeline like the aforementioned parallel universe, only occasionally entered. Such were probably times of leisure and security around the hearth that permitted the opening of the newly discovered door into the awesome potentials of a realm where the spoken word allowed the mundane environment to blossom (or transmogrify) into the fantastic world of myth.

## §8. Myth and Language

It has been shown, I think decisively, by both poststructuralists and more conventional language theorists that language is more metaphor than objective representation. George Lakoff and Mark Johnson (1999) make the case that our entire tradition of rationally-based philosophy is illusory. *Truths* thought to derive from *universal reason* are revealed as abstractions or category complexifications of embodied experience — all made possible through the creative use of syntax. It should be no surprise that the attempt to reduce language to the clarity of mathematical formulae by the logical positivists proved to be futile. But if language is self-referentially symbolic and metaphor *all the way down*<sup>40</sup> — that is, not innately practical — one may well wonder what immediate practical purpose the crossing of the symbolic threshold served. As I have indicated above, the will to live is itself an impeccably practical need.

The world of abstract symbols as found in myth and religion is similarly based in metaphor and imagery. As I have postulated above, the major impetus for the symbolic transformation was the intensification of the existential crisis. The only response possible to the de-meaning fact of mortality was a vast and sudden expansion of awareness into meaning-making metaphor. As indicated above, a ‘great hope’ was existentially necessary to deal with a truly life threatening crisis — though what was actually threatened was the tribal identity that first congealed in response to the ‘great fear’. *This great yearning or hope fulfilled itself in the discovery/creation of the realm of the sacred, as expressed in the myths and mythic images of archaic peoples.*

Language (FLN), as Cassirer first indicated, was similarly discovered/created to serve the need for myth, including myths that deny the end, that is, myths of circular time, the eternal return. Eliade (1954) has famously argued that ‘archaic man’ felt ‘the terror of history’, that is, of linear unrepeatable time. If past time is remembered to have

---

<sup>40</sup> To semantic primes or frames at least.

a beginning, middle, and end, it not only puts the Grim Reaper at the end of all our advances, but it allows personal narrative memory to create the ego-self whose desires may become set against those of the larger tribal-self. So the solution offered by archaic myth (and all myths are creation myths to Eliade) and time-regenerating ritual was to identify with the birth-death-rebirth patterns of Nature. Time has no end!

This must be what literary theorist Owen Barfield (1977) had in mind when he aphorized, 'It was not man who made myths but myths, or the archetypal substance they reveal, which made man' (p. 75). If it can be accepted that protolinguistic cognition had led our ancestors to developmental stasis (not actual despair) by their sense of inescapable doom, then it can be understood how the soul — the drive of life itself — would have called forth what cognitive powers were at hand to meet this crisis with a breakthrough never before seen under the sun. However, Eliade (1963) himself did not see this as a creative human response to a stressful crisis, but as an 'irruption of the sacred' *into* the cultural life of humanity: 'In short, myths describe the various and sometimes dramatic breakthroughs of the sacred (or the "supernatural") into the World. It is this sudden breakthrough of the sacred that really *establishes* the World' (p. 6). In this view, the sacred is identified with the 'supernatural', which has the agency to 'irrupt' into the natural world. Here, God or the gods led humanity to mortal knowledge so they or It could be recognized, as in the traditional hymn: *'T'was Grace that taught / my heart to fear. / And Grace, my fears relieved. / How precious did that Grace appear / the hour I first believed.'*

This is a pleasant thought, but this sense of supernatural meaning comes at the price of recognizing the fierce life-drive of natural forces, not even to mention human creativity and freedom. Eric Gans (1993) and his generative anthropology would have it that God and humanity simultaneously came to be in the 'originary event'. But since 'God' is here a term without a referent or even a thinkable idea of a referent, I will be content to say both the sacred and humanity came to be in the decisive crisis of a communal response to mortal despair. We began in the sacred and the sacred, as a quality of awareness, began with us.

Though others have seen his philosophy as idealist, the sacred is not the same as 'God' for Cassirer (1944, 1946a) either. He emphasized the creativity found in the symbolic forms, but these are not Platonic forms dwelling eternally beyond Nature. Cassirer's symbolic forms have no supernatural existence of their own. They came to function as the transformational nexus of meaning between greater Nature and humanity: proto-humanity's own adaptive powers were under such intense stress that the creativity of Nature burst into the now human mind. The only thing seemingly supernatural here is the symbolically-enabled awareness that transcended the limits of the animal body's immediately sensed environment with imagistic apprehensions of the *far beyond* in time and place. Such 'transcendence' is still biologically based,<sup>41</sup> the leap into symbolic

---

<sup>41</sup> Neuroscientist Antonio Damasio (2003) agrees that human consciousness emerged as a necessary response to a biological crisis: 'Confronting death and suffering can forcefully disrupt the homeostatic state. ... The yearning for homeostatic correctives would have begun as a response to anguish' (p. 271). He seems to agree that 'social emotions and feelings of empathy' that 'already were budding in nonhuman species' would be enough to bring on this life-threatening anguish, and that memory-extended consciousness and



forms to overwhelm a previous biological abnegation is indicative of greater potency and prescience in Nature than is usually considered.

Finally, however, it is meaningless to question whether the sacred, as such, pre-existed humanity's discovery of it since it can only be known by the forms we give it in our myths, visions, dreams, and artistic-musical expressions. Yet the sudden ability to *see* beyond oneself or one's group routines found in the enchanted speech and images of mythmaking must have awakened the life of our species to the greater unity of existence, well beyond individual life-cycles: the wonder of the animated sky, the cycles of Nature, and the mythic memory of the *illud tempus* whence they originated. In what must have been experienced as the gift of revelation, the first mythmakers *together* received the images and created the symbols that would allow the sense of participation in a greater reality and in that way transcend the shadow of individual mortality. At last, the *far beyond* could be grasped (in symbol and image) and entered, right here and now through sacred ritual.

Eliade (1969) — in a statement often self-cited — insisted that 'it is impossible to imagine how consciousness could appear without conferring a *meaning* on man's impulses and experiences. Consciousness of a real and meaningful world is intimately connected with the discovery of the sacred' (preface). That the sacred revealed itself with our awareness of it will be anathema to centuries of objective attempts to explain myth, ritual, art, and religion through sociology, genetics, political-economics, evolutionary psychology, sociobiology, philology, or even semiotics. Eliade, however, would explain that all these scholarly disciplines act as part of our cultural reduction of the sacred to the secular, but are, in actuality, *still manifestations of it*. The perspective from the subject-excluding objectivity of mind-independent reality is in fact an attempt to see ourselves and our experienced reality from a god's eye view, that is, from the beyondness first conceivable through the creation/discovery of the greater, all-pervasive reality experienced as the sacred. In this view, speech as narrative (and concept as image) was the vehicle that conveyed our ancestors across the symbolic threshold into a new, consciously-apprehended reality beyond the merely sensory or biologic (a reality that in our times has largely become desacralized and *despirited* as 'objective').

This receptive apprehension did not merely awaken *to* the gods already manifest in universal forces, but was itself the awakening *of* such suprapersonal entities with whom a tribe could engage in ritualized symbolic exchange; *in this sense* Gans's (1993) coeval appearance of humanity and God may be correct. It could be said with equal veracity that it was the reality of transhuman forces within wider Nature that drew experience across the threshold into consciousness — at which point humanity experienced itself as a participant in the beyond-the-merely-biologic, though its primal oceans of emotion remained the touchstone of such participation. The symbolic universe opened vistas outward in space and time and inward toward the dark heart of emotion that were not possible previously. In Eliade's (1978) view, 'In proportion as it was perfected, lan-

---

imagination, unique to humans, compensated with hope and reverence. He even supplies an evolutionary rationale for the spread of such abstract thinking: 'Those individuals whose brains were capable of imagining such correctives and effectively restoring homeostatic balance would have been rewarded by longer life and larger progeny' (pp. 271-2).

guage increased its magico-religious abilities. The uttered word loosed a force difficult, if not impossible, to annul' (p. 28).

So, as revealed in studies of metaphor, myth is neither a 'disease of language' (Müller, 1873) nor language's ideological abuse (Barthes, 1972), nor simply a palace of the imagination built from it. *Myth is language and language continues to be mythic*. Language and myth first appear as 'twin creatures', two faces of one head, as Cassirer (1944) expressed it:

Language and myth are near of kin. In the early stages of human culture their relation is so close and their cooperation so obvious that it is almost impossible to separate the one from the other. They are two different shoots from one and the same root. Whenever we find man we find him in possession of the faculty of speech and under the influence of the myth-making function. (p. 109)

To speak or write or think is a mythmaking venture, and so are most other distinctly human activities from transcendent chorales of praise in heaven-pointing cathedrals down to elaborate fetishistic sexual rituals or even beyond into psychopathology. Praiseworthy acts of compassionate selflessness are as renescent of prehistoric ritual sacrifice as are less praiseworthy acts of suicide. From communion with the divine in prayer or meditation to entheogenic visionary *trips*, the thirst for the sacred or other *planes of reality* continues. Despite our progress and sophistication, our language continues to escape from mere instrumentality with its drive to reduce the unknown to the known and find a practical application for it. The need for myth continues, though often occulted, not by breaching the walls of the unknown world beyond human experience but by continually expanding our palaces of the imagination, which are not mere fictions but, as I've pointed out, aspects of all human endeavour, our reality itself. As historian-grapher Paul Veyne (1988) once put it:

These palaces are not built in space, then. They are the only space available. They project their own space when they arise. There is no repressed negativity around them that seeks to enter. Nothing exists, then, but what the imagination, which has brought forth the palace, has constituted. (pp. 121-2)

Beyond these palaces (in which gods may dwell) lies ...nothing. To conceive essences from this nonspace is simply to expand the palaces and further push back the horizons of the unknown, 'that untraveled world whose margin fades / For ever and for ever when I move', as Tennyson's Ulysses put it.

An approach that is central to this theme is found in creation myths — including those of mainstream religion and scientific cosmology. A comparative study of such myths reveals 'patterns of repetition' (Eliade, 1963) that must be more than arbitrary syncretism. Culturally specific symbols and details to do with names, places, and events cannot entirely obscure the transcultural mythologems that are the actual inspiration of such tales, artwork, and rituals. It seems to me that experiencing the symbols and images of myth themselves rather than merely talking about them reveals more about the beginnings of the human mind than do empirical studies of the *mind-independent reali-*

ty before or beyond that mind. Myth is self-revelatory, *speaking* in its own language of emotion-laden images, just as dreams do according to archetypal psychologist, James Hillman (1979). According to Hillman, we less objectively analyse our own dreams than *dream them forward*. All the interpretations we apply to myth or dream or art only displace ourselves from the inherent import of the images themselves. The myth communicates on the level of direct experience, so all the studies on them, like studies of dream, are only further mythmaking elaborations of the primal structuring of the imagination — archetypes of the ‘collective unconscious’ within the life and energy of Nature. Alan Watts (1963) once said that ‘myths are natural phenomena which grow out of the mind more or less uniformly in all places, just as the human body is of one essential pattern in China and Peru’ (p. xiv).

Such comparative studies of creation myths have been carried out<sup>42</sup> and retain great interest for phenomenological or even psychoanalytical studies. Mythologist David Adams Leeming (1990) states that

the creation myth, like the myth of the hero’s birth, inevitably has a psychological meaning. In the fact that cosmos is born out of chaos or no-thing-ness, or the fact that a hero is born of a virgin, we find a metaphor for the awakening of consciousness from the unconscious. (p. 16)

Though other interpreters do not always agree with the names they apply to categorize these patterns of repetition, such similar themes as the simple birth of humanity (from divine primal parents or an earth goddess alone or from an all-powerful male god excreting some form of fertilizing effluent like spit or semen), the creation of order out of chaos or of form from a formless unity, the dive to the bottom of the sea, the killing and dismemberment of a primordial monster from whose parts Nature is made, creation by thought out of nothing, or emergence from a stifling or limiting enclosure (the primal parents Earth and Sky embracing too tightly for the light of mind to awake between them, the cosmic egg, the pre-Big Bang singularity, etc.).

The most completely rendered work on creation myth and consciousness may still be *The Origin and History of Consciousness* (1954) by psychoanalyst Erich Neumann. Though its terminology is basically Jungian, Neumann goes beyond his mentor by conjuring up images of preconscious experience within the *uroboros* — the self-consuming, self-nourishing serpent — that is also the womb of the Great Mother, Nature herself. For Neumann, symbolism is the transformative chord, the *language*, between preconscious experience and experience that is conscious to itself: ‘Only the symbol group, compact of partly contradictory analogies, can make something unknown, and beyond the grasp of consciousness, more intelligible and more capable of becoming conscious’ (p. 8).

Elsewhere Neumann (1983) has clarified how the symbolic makes the distinct process of conscious apprehension and finally language itself possible. The symbol is said to partake of the both the material in which it is manifest and to point toward the

---

<sup>42</sup> These include Long, 1963; Maclagan, 1977; Sproul, 1979; & von France, 1995.

abstract imagery of the bottomless collective unconscious of Jungian vocabulary. The symbol is rational in its construction but the response it draws forth is irrational. How is this possible?

Before conscious mediation, the human psyche was immersed in the *surreal* of archetypal images. Where were these images? They were all around humankind *as world*. Previous to the fatal step of distinguishing the subject from the object, there was no specifically *inner* realm of the mind. That which was experienced was experienced in the world, experiencing self *as the world*. From our perspective we may conjecture that humanity projected his experience of archetypal images upon the world but it is more to the point that this world of experience was reality.

Without sidetracking too much into the nature of the archetype, let us just note here that Jung in several places identified the archetypes — with all their vague boundaries, contradictions, and mutual affect — with the instincts, but understood them as patterns of feeling or response rather than behaviour alone. When such feeling tones congeal, they may be unconsciously experienced in the form of the ‘archetypal image’, though without the act of symbolization this instinctual image is always just ‘beyond reach’ or recognition in the realm of the potential. Neumann (1983) quotes Jung: ‘The primordial image might suitably be described as the *instinct’s perception of itself*, or as the self-portrait of the instinct’ (p. 6).

Powerfully compelled by these *presences* in the world, more felt than actually perceived, we create concrete metaphors — rituals or representations — of our experiencing. This is the symbol, whose indubitable meaning derives from the power of its archetypal source and communal agreement that this is the case. ‘But the pictorial plane, on which the archetype becomes visible to consciousness, is the plane of the symbol, and it is here that the activity of the unconscious manifests itself in so far as it is capable of reaching consciousness’ (p. 6). *The symbol as picture or practice is tangible yet opens the door to that which is not, the inchoate presence and effect of the archetypal forces.*

The symbolic or metaphoric aspect of language, then, is what the linguists have identified as its semantics or, overall, semiosis. But without the spur of imagination — the symbol’s compelling ‘just out of reach’ aspect of felt meaning — language would be just uninspired technology. Hermeneutic philosopher Paul Ricoeur (1967) has emphasized the centripetal power of the symbol to focus inchoate experience into that which can be spoken — that is, the first words without concrete referents, the step out of proto-language into the real thing. Referring to the sense of felt presences (what Neumann or Jung would call archetypal images), Ricoeur declares that ‘for these realities to be a symbol is to gather together at one point a mass of significations which, before giving rise to thought, give rise to speech’ (p. 11). The communally accepted meaning of such symbols is what gives language wings, that is, its imaginal potential to expand into the unknown. This explains what Ricoeur calls *an excellent maxim*: ‘The symbol gives rise to thought’ (pp. 347-57).

These same themes could metaphorically express the awakening of individual consciousness (itself a symbolic complex) through the communication of shared symbols in the intersubjective matrix of culture. The *phase transition* from the cycles of pre- or protoconsciousness to full human consciousness must have been a wonderment that left the previous state of *raw* experience impossible to *make sense of*. We can gain some insight into the other side of the symbolic threshold by considering how Helen Keller (1910) attempted to describe herself before being guided by Anne Sullivan to her destined meeting with the water pump: ‘Before my teacher came to me, I did not know that I am. I lived in a world that was a no-world. I cannot hope to describe adequately that unconscious, yet conscious time of nothingness’ (p. 113).

In the same way each of us awakens from a sleep, feeling the tendrils of dream slip away. Where have we been? What has just happened? Before we succumb to the habit routines of the day, we may create narratives to give those fading images form, not realising that in doing so we are ‘dreaming the dream forward’ more than we are recalling the experience itself.

In this reading, death is no longer the naked fact that makes life meaningless. It becomes instead a word, an idea, a symbol that, as such, can be dealt with symbolically. Symbolic activity has much greater freedom of movement than does life activity itself. In fact, life activity soon becomes itself symbolic activity once myth and language have combined to create human culture. It suddenly becomes a great deal more than mere survival. ‘In mythical thought the mystery of death is “turned into an image” — and by this transformation, death ceases being a hard unbearable physical fact; it becomes understandable and supportable’ (Cassirer, 1946b, p. 49).

The web of tales we call a mythology is thus seen as an existential response to an existential crisis brought about through the rudimentary cognitive powers that evolved from millions of years of tool use, group hunting, and complex social structure, mimetic communication, and protolanguage. But it must not be forgotten that the need for a mythic response in humanity was also a need for language in which to vocalize such myths to accompany rituals and give form to the experience. Donald (1991) noted in his groundbreaking work that language developed rapidly even while technology stood virtually still, so its growth was likely spurred by the need for mythic images and ideas:

The myth is the prototypal, fundamental, integrative mind tool. ... The pre-eminence of myth in early human society is testimony that humans were using language for a totally new kind of integrative thought. Therefore, the possibility must be entertained that the primary human adaptation was not language *qua* language but rather integrative, initially mythical thought. Modern humans developed language in response to pressure to improve their conceptual apparatus, not vice versa. (p. 215)

And this is precisely why Cassirer (1944) has insisted that myth and language are twin creatures, identical in origin, with their separation only occurring since the advent of widespread literacy, scientific objectivity, and perhaps *modernity*. He continued this theme in a later work:

Language and myth stand in an original and indissoluble correlation with one another, from which they both emerge but gradually as independent elements. They are two diverse shoots from the same parent stem, the same impulse of symbolic formulation, springing from the same basic mental activity, a concentration and heightening of simply sensory experience. In the vocables of speech and in primitive mythic figurations, the same inner process finds its consummation: they are both resolutions of an inner tension, the representation of subjective impulses and excitations in definite objective forms and figures. (1946a, p. 88)

Language at its core is mythic and its growth is a study in mythmaking, the creation of a universe of symbols and symbolized experience. However, Cassirer feels that logic is a different and superior ‘tendency of thought’ and seems to agree with Donald (1991) that once what he (Donald) calls *theoretic culture* begins, mythic cognition loses its grip. This distinction is at least controversial, and many social observers think our vaunted rationality remains rooted in a plethora of unquestioned, value-giving assumptions which *include the myth of logical objectivity* (Kolakowski, 1989), the myth of progress (Guggenbühl-Craig, 1991), the myth of self (that becomes narcissism) (Hillman, 1989), and our gods of Economic Utility, Consumerism, and Technology (Postman, 1996). This is not even to approach the mythical metaphysics which continues to inhere in science itself (*cf.*, Burt, 1924; Griffin, 1988; Harman, 1994; Malik, 1995).

It finally needs to be reiterated that myth and language are also both fluid, long-term projects whose words, attributes, and images seem at first to be more communally *received* than conjured or actively created — though with the rise of village culture, self-seeking ideologies likely begin to infect the mythic spell. The forms of each quickly succumb to regional variations and the need for continual updating in accordance with changing circumstances, the latter called mythic *functionalism* by the esteemed early 20th century anthropologist, Malinowski (1926). Donald (1991) points out that such stories of what happened in the beginning are not canonical, at first, but relational, intersubjective, worked out over generations, until an official version is sanctioned. The same could be said for language itself:

The supreme product of the narrative mode, in smaller preliterate societies, is the myth. The myth is the authoritative version, the debated, disputed, filtered product of generations of narrative interchange about reality. ... And those who preserve and regulate myth — priests and shamans — hold positions of great power in the collective cognitive hierarchy. (p. 258)

At this point, we should now be able to understand what myth *is* with some sophistication beyond accepting it as merely a far-fetched tribal tale. Once more, the major attributes of mythmaking include spontaneity and intersubjectivity. It is not consciously created, not self-guided fantasy, but received as revelation (though by necessity put into culturally specific forms). It is at first the other face of language — the very form language takes in dealing with the lived realities of the emotionally overwhelming existential crisis. Language is pushed beyond itself to accommodate the need for greater mythic complexity and in so doing allows for greater cultural complexity. Coeval speech, mythic narrative, tribal identity, and intersubjectivity are essentially *the content of the symbolic*

*threshold* that experientially separates us from the rest of Nature. In any case, we have reached a sufficient understanding of myth and mythmaking to begin to approach the question of how ancient and tribal myths respond with the mystery of conscious experience (and to see if we modern postmoderns can learn from this response).

Understanding through such personal mythopoeisis may allow us a sense of what our ancestors must have felt as they attempted to account for their own awakening — and for what chaos, confinement, or monstrosity preceded it. The conclusion seems unavoidable that prehumans underwent an existential crisis that could be resolved only by the discovery-creation of the larger realm of symbolic consciousness we call *the sacred*. Imagination is born. Within this larger mythos *humanity was able to conceive itself* and emerge as a new species on this blue planet.

Mortal knowledge then is the unbearable negation of all life striving. Since death in itself cannot be conceived it may be understood as the *absent-presence* (to borrow a phrase from phenomenology) around which mythic narratives and images circulate. It is the reason for narrative, yet its aporia. Since meaning is only intended but never completely arrived at via narrative or image, death may be understood as the lacuna within it, but it is this lacuna that gives storytelling its impetus. “The storyteller has borrowed his authority from death,” literary theorist Walter Benjamin (1969) declared. Death “imparts to everything that concerned him that authority which even the poorest wretch in dying possesses for the living around him. This authority is at the very source of the story” (p. 94).

Though we, the human species *H. sapiens*, are but one species among innumerable others, in terms of experience we differ in kind, not degree. It is not our tools, our knowledge, our religion, or even our speech that sets us apart; it is instead the quality of symbolic displacement that realises self-consciously inhibited awareness. This composite screen of *self-reflected experience* is our palace of exile and the *aporia* within all our knowledge. This is the *psychosis*<sup>43</sup> of culture, mind displaced from direct experience. Though mortal foresight drove us into a new mode of conscious being epitomized by the ‘*writhe*’ of *civilization*, no one alive knows for certain if death is the final end of experience or not.

No doubt there has been great gain and great loss in becoming the new species that Charles Morris (1993) designated as *Homo symbolicus*<sup>44</sup> in his 1925 dissertation — a notion that warrants serious consideration. Finally, since no atavistic desymbolization is conceivable or desirable, the best that can be imagined is to guide our myths — the *thrust* of the human experience — with wisdom, courage, and faith, while surrendering to their inscrutable *telos*. Rather than negate fantasy, we should rather dream the dream forward or inward, daring to bring light and form to the hollows of soul rather than merely expanding numerically outward across Earth and beyond.

---

<sup>43</sup> *Psychosis*: ‘2. A particular form of conscious functioning or condition, as distinguished from the accompanying brain changes: opposed to *neurosis*’ (Funk *et al.*, 1938).

<sup>44</sup> Cassirer (1944) nominated the title *animal symbolicum* (p. 26), while Percy (1975) called us like he saw us, *Homo symbolificus*, ‘man the symbol-monger’ (p. 16).

On the darker side, however, another recurrent archetype revealed in creation myths is that of paradise lost — a departure from that dawn time when creation was eternal for each moment was the *only* moment, unconditioned by a remembered past — when the ‘gods walked amongst humans’, and anything was possible but foreknowledge. Often dismissed as romanticism, this mythologem is the form given to the disquieting sense that some terrible price was paid for our crossing into selfhood, knowledge, and power. Existential guilt or angst may be the result of this Heideggerian divorce from Being, just as violence is the human response to our existential terror. This was the birth of tragedy, as Nietzsche knew. Within our very conceiving is the taint of *misconception* — the blood of primeval titans mingling with the ichor of the gods.<sup>45</sup>

### §9. Afterword: Prehistoric Speculation

After all this, it must be admitted that recently there has been an upsurge in agreement amongst professional researchers that human symbolic interaction began much earlier and resolved itself much more gradually than I here argue. The multidisciplinary case for the Blombos Cave origin of symbolic activity (ca. 70 kya) is made by d’Errico *et al.* (2003), yet even they concede the evidence is not decisive: ‘It is a matter of debate whether convincing archeological evidence exists for an earlier origin’ (p. 17). Tattersall (personal communication) accepts Blombos as indicative of symbolic activity, but still stands by the late symbolic threshold of human language (FLN) coincident with the Aurignacian upsurge as being definitive.

In the event, I’d like to make some unsupportable guesses as to just when and where this decisive and crucial crossing into the world of symbolic forms may have taken place. Biological research into the DNA trail has shown that an early form of *H. sapiens* who was well established in the Levant some 100-150 kya (but still on the far side of the aforementioned threshold) moved north into central Asia (not west directly into Europe, as many have presumed). *H. sapiens* in its ‘archaic’ form originated in Africa and today there is more DNA diversity among Africans than among all other ‘races’ that emerged on other continents combined, implying that only a single tribe or small number of families led the exodus. The *H. sapiens* who found themselves in central Asia at the height of the last Ice Age continued to migrate in at least three separate directions (south, east, and west), evolving into the other biological types or ‘races’ of that species in gradual adaptation to the climates they entered. The ancestors of the late-*sapiens* Cro-Magnon then would have been forced across the Caucasus Mountains in what is now Russia before arriving and flourishing in what is now southwestern Europe (see Wells, 2002, 2007; Wade, 2006).

---

<sup>45</sup> It is an awful thing to dare ask what has been lost by objectifying natural reality & entering the magic mirror of cultivated reality. But preconscious experience — like the afterlife & the extrauniversal — is literally *unthinkable*, as such. Still, the loss of paradise mythologem — given form in Genesis as the eating from the Tree of Knowledge & suffering consequent exile from the unity & sensual immediacy of Nature — is too universal & too compelling to be ignored. It is as though direct animal-natural experience had been cored — hollowed out — by the mortal dread that was momentarily transubstantiated into the efflorescence of symbolic knowledge and the human witness to being.



My speculation is that it was at this time (*ca.* 40 kya) in Russia, perhaps within a small tribe isolated for generations in a Caucasus valley that biologically undetectable but still very real speciation (phenomenologically speaking) happened through symbolic awakening to the sacred. From there, as their migration continued southward, I postulate that such new still 'spellbound' but fully modern human beings, 'walking warm onto the fields of praise' (to paraphrase Dylan Thomas) would have literally *spread the word* like some irresistible charismatic religious movement. The leap in the quality of stone, as well as bone and antler, tools and weapons known as the Aurignacian in Europe and the Baradostian in southern Kurdistan began soon after.

It's probably too much to guess that women were the primary catalysts of the symbolic breakthrough based on archeology (and not just because of Dunbar's gossip theory). Beautifully sculpted and widely distributed little 'Venus' figurines of stone or ivory first appear around 28 kya, but they may have been preceded by an age of similar figurines constructed in impermanent material. Beyond that, however, women were most often the campsite attendants and would be most aware of the tribal hierarchy and family ties, not to mention being most directly concerned with *time* – birth, aging, and inevitable (non-violent) death, and in this view, such was the catalyst for awakening to symbolic experience of the sacred.



Venus of Laussel, *ca.* 25,000 years ago

## References

- Abram, D. (1996). *The Spell of the Sensuous: Perception and Language in a More-Than-Human World* (New York: Pantheon).
- Ardrey, R. (1966). *The Territorial Imperative: A Personal Inquiry into the Animal Origins of Property and Nations* (Springfield, IL: Atheneum).
- Bachelard, G. (1987). *On Poetic Imagination and Reverie*, introduction & trans. C. Gaudin (Dallas: Spring).
- Barfield, O. (1977). *The Rediscovery of Meaning, and Other Essays* (Middletown CT: Wesleyan UP).
- Barthes, R. (1972). *Mythologies*, trans. A. Lavers (New York: Noonday). Original in French 1957.
- Beamish, P. (2004). 'The science of ceta research, C/R'. Accessed online 4/26/04: <http://www.oceancontact.com/research/research.html>
- Benson, J., Greaves, W., O'Donnell, M., & Tagliatela, J. (2002). 'Evidence for symbolic language processing in a bonobo (*Pan paniscus*)', *Journal of Consciousness Studies*, 9 (12), pp. 33-56.
- Bickerton, D. (1995). *Language and Human Behavior* (Seattle: UP Washington).
- Birenbaum, H. (1988). *Myth and Mind*. Lanham, MD: U Press of America.
- Blumer, H. (1962). 'Society as symbolic interaction', in A. Rose, ed., *Human Behaviour and Social Processes: An Interactionist Approach* (Boston: Houghton Mifflin), pp. 179-192.
- Burkert, W. (2002). *Homo Necans: The Anthropology of Ancient Greek Sacrificial Ritual and Myth* (2nd ed.), trans. P. Bing (Berkeley CA: UP California). Original in German 1972.
- Burtt, E.A. (1924). *The Metaphysical Foundations of Modern Physical Science: The Scientific Thinking of Copernicus, Galileo, Newton and Their Contemporaries* (re-published 1999 Amherst NY: Humanity/Prometheus).
- Campbell, J. (1969). *The Masks of God: Primitive Mythology* (revised ed.). vol 1 of *Masks of God*, 4 vols, 1959-69 (Harmondsworth UK: Penguin). Original 1959.
- Cassirer, E. (1953-57). *The Philosophy of Symbolic Forms*, 3 vols., trans. R. Manheim (New Haven: Yale UP). Original in German, 1923-31.

- Cassirer, E. (1944). *An Essay on Man: An Introduction to a Philosophy of Human Culture* (New Haven/London: Yale UP). Copyright renewed 1972, H. Cassirer & A. Applebaum.
- Cassirer, E. (1946a). *Language and Myth*, trans. S.K. Langer (New York: Dover).
- Cassirer, E. (1946b). *The Myth of the State* (New Haven & London: Yale UP).
- Chauvet, J-M., Deschamps, É.B., & Hillaire, C. (1996). *Dawn of Art: The Chauvet Cave*, trans. P. G. Bahn (New York: Abrams).
- Chomsky, N. (1975). *Reflections on Language* (New York: Pantheon).
- Crapanzano, V. (2004). *Imaginative Horizons: An Essay in Literary-Philosophical Anthropology* (Chicago: U of Chicago Press).
- Damasio, A. (2000). *The Feeling of What Happens: Body and Emotion in the Making of Consciousness* (Orlando, FL: Harcourt).
- Damasio, A. (2003). *Looking for Spinoza: Joy, Sorrow, and the Feeling Brain* (Orlando FL: Harcourt).
- Deacon, T. (1997). *The Symbolic Species: The Co-Evolution of Language and the Brain* (New York: Norton).
- d'Errico, F., Henshilwood, C., Lawson, G., Vanhaeren, M., Tillier, A.-M., Soressi, M., Bresson, F., Maureille, B., Nowell, A., Lakarra, J., Backwell, L., & Julien, M. (2003). '[Archeological evidence for the emergence of language, symbolism, and music: An alternative multidisciplinary perspective](#)', *Journal of World Prehistory*, 17 (1), pp. 1-70.
- Dewart, L. (1989). *Evolution and Consciousness: The Role of Speech in the Origin and Development of Human Nature* (Toronto: UP Toronto).
- Dodds, E.R. (1973). *The Greeks and the Irrational* (Berkeley: UP California). Original 1953.
- Donald, M. (1991). *Origins of the Modern Mind: Three Stages in the Evolution of Culture and Cognition* (Cambridge MA: Harvard UP).
- Dunbar, R. (1998). *Grooming, Gossip, and the Evolution of Language* (Cambridge MA: Harvard UP).
- Edelman, G.M. (1992). *Bright Air, Brilliant Fire: On the Matter of Mind* (New York: Basic Books).

- Eldridge, N. & Gould, S.J. (1972). 'Punctuated equilibria: An alternative to phyletic gradualism', in *Models in Paleobiology*, ed. T.J.M. Schopf, pp. 82-115 (San Francisco: Freeman, Cooper, & Co.)
- Eliade, M. (1954). *The Myth of the Eternal Return: Or, Cosmos and History*, trans. W.R. Trask (Princeton: Princeton UP). Original in French 1949.
- Eliade, M. (1963). *Myth and Reality*, trans. W.R. Trask (New York: Harper & Row).
- Eliade, M. (1964). *Shamanism: Archaic Techniques of Ecstasy*, trans. W.R. Trask. Bollingen Series LXXVI. (Princeton: Princeton UP).
- Eliade, M. (1969). *The Quest: History and Meaning in Religion*, trans. W.R. Trask (Chicago & London: UP Chicago).
- Eliade, M. (1978). *A History of Religious Ideas: From the Stone Age to the Eleusinian Mysteries* (vol 1), trans. W.R. Trask, 3 vols, 1978-85 (Chicago & London: UP Chicago).
- Eliade, M. (1978-85). *A History of Religious Ideas*, trans. W.R. Trask, 3 vols, 1978-85 (Chicago & London: UP Chicago).
- Eliade, M. (1990). *Journal I: 1945-1955*, trans. Mac Linscott Ricketts (Chicago: UP Chicago). Original in French 1973.
- Eliot, A. (1990). 'Introduction', in *The Universal Myths: Heroes, Gods, Tricksters and Others* (pp. 1-15), ed. A. Eliot, 2nd ed. (New York: Meridian).
- Fitch, W.T., & Hauser, M.D. (2004). 'Computational constraints on syntactic processing in a nonhuman primate', *Science*, 303, pp. 377-380.
- Frankfort, H. & H.A. (1949). 'Myth and reality', in H. & H.A. Frankfort, T. Jacobsen, & J.A. Wilson, *Before Philosophy* (Harmondsworth UK: Penguin), pp. 11-36.
- Funk, I.K., editor-in-chief (1938). *Funk & Wagnall's New Standard Dictionary of the English Language* (New York: Funk & Wagnalls/Collier).
- Gallagher, S. (2001). 'The practice of mind: Theory, simulation or primary interaction', *Journal of Consciousness Studies*, 8 (5-7), pp. 83-108.
- Gallup, G.G., Jr. (1970). 'Chimpanzees: Self-recognition', *Science* 167, pp. 86-87.
- Gallup, G.G., Jr. (1987). 'Self-awareness,' in *Biology and Ecology* (Comparative Primate Biology, vol 2), eds. G. Mitchell & J. Erwin, pp. 3-16 (New York: Wiley-Liss).
- Gans, E. (1993). *Originary Thinking: Elements of Generative Anthropology* (Stanford: Stanford U Press).

- Giegerich, W. (1993). 'Killings', *Spring 54: A Journal of Archetype and Culture: The Reality Issue* (Putnam CT: Spring Journal). pp. 5-18.
- Gimbutas, M. (1988). *The Language of the Goddess* (San Francisco: Harper).
- Girard, R. (1979). *Violence and the Sacred*, trans. P. Gregory (Baltimore: Johns Hopkins UP).
- Greenspan, S.I., & Shanker, S.G. (2004). *The First Idea: How Symbols, Language, and Intelligence Evolved From Our Primate Ancestors to Modern Humans* (Cambridge MA: Da Capo Press).
- Griffin, D.R., ed. (1988). *The Reenchantment of Science: Postmodern Proposals* (Albany: SUNY).
- Guggenbühl-Craig, A. (1991). *The Old Fool and the Corruption of Myth*, trans. Dorothea Wilson (Dallas: Spring). Original in German 1980.
- Hagège, C. (1990). *The Dialogic Species*, trans. S.L. Shelley (New York: Columbia UP). Original in French 1985.
- Harman, W. (with J. Clark). ed. (1994). *New Metaphysical Foundations of Modern Science* (Sausalito: Noetic Sciences).
- Hauser, M., Chomsky, N., & Fitch, W.T. (2002). [The faculty of language: What is it, who has it, and how did it evolve?](#) *Science*, 298, pp. 1569-1579.
- Havelock, E. (1986). *The Muse Learns to Write: Reflections on Orality and Literacy from Antiquity to the Present* (New Haven: Yale UP).
- Henshilwood, C., Sealy, J., Yates, R., Cruz-Uribe, K., Goldberg, P., Grine, F.E., Klein, R.G., Poggenpoel, C., van Niekerk, K., & Watts, I. (2001). 'Blombos cave, southern Cape, South Africa: Preliminary report on the 1992-1999 excavations of the Middle Stone Age levels', *Journal of Archeological Science*, 28 (4), pp. 421-448.
- Hillman, J. (1979). *The Dream and the Underworld* (New York: Harper & Row).
- Hillman, J. (1989). 'Back to beyond: On cosmology'. In D.R. Griffin, ed., *Archetypal Process: Self and Divine in Whitehead, Jung, and Hillman*, pp. 213-231 (Evanston IL: Northwestern UP).
- Hockett, C.F. (1960). 'The origin of speech', *Scientific American*, 203 (3), pp. 88-96.
- Illich, I. (1993). *In the Vineyard of the Text* (Chicago: U of Chicago Press).

- Johanson, D. & Johanson, L. (with B. Edgar) (1994). *Ancestors: In Search of Human Origins*, Companion Volume to the Nova video Series (New York: Villard Books/Random House).
- Keller, H. (1910). *The World I Live In* (New York: Century).
- Klein, R.G., with B. Edgar (2004). *The Dawn of Human Culture* (New York: John Wiley & Sons).
- Kolakowski, L. (1989). *The Presence of Myth*, trans. A. Czerniawski (Chicago & London: UP Chicago). Original 1972.
- Kristeva, J. (1989). *Language the Unknown: An Initiation into Linguistics*, trans. A.M. Menke (New York: Columbia U.P.). Original in French 1981.
- Lacan, Jacques (1977). *Ecrits*, trans. Alan Sheridan (New York: Norton).
- Lakoff, G. & Johnson, M. (1999). *Philosophy in the Flesh* (New York: Basic Books).
- Leakey, R. (1994). *The Origin of Humankind* (New York: BasicBooks).
- Leeming, D.A. (1990). *The World of Myth: An Anthology* (New York & Oxford: Oxford UP).
- Libet, B. (1965). 'Cortical activation in conscious and unconscious Experience', *Perspectives in Biology and Medicine*, 9, pp. 77-86.
- Lieberman, P. (1998). *Eve Spoke: Human Language and Human Evolution* (New York & London: Norton).
- Long, C.H. (1963). *Alpha: The Myths of Creation* (New York: George Braziller).
- Lord, A.B. (1960). *The Singer of Tales* (Cambridge MA: Harvard UP).
- Lorenz, K. (1966). *On Aggression* (New York: Bantam).
- Maclagan, D. (1977). *Creation Myths: Man's Introduction to the World* (London: Thames & Hudson).
- Malik, S.C. (1995). *Reconceptualising the Sciences and the Humanities: An Integral Approach* (New Delhi, India: Manohar).
- Malinowski, B. (1926). *Myth in Primitive Psychology* (New York: Norton).
- McCrone, J. (1999). *Going Inside: A Tour Round a Single Moment of Consciousness*. London: Faber & Faber.

- McKenna, T. (1993). *Food of the Gods: The Search for the Original Tree of Knowledge, A Radical History of Plants, Drugs, and Human Evolution*, reprint edition (New York: Bantam Doubleday Dell).
- Merleau-Ponty, M. (1973). *Consciousness and the Acquisition of Language*, trans. H.J. Silverman (Evanston IL: Northwestern UP).
- Morris, C.W. (1993). *Symbolism and Reality: A Study in the Nature of Mind*, reprint#3 (Amsterdam: John Benjamins). Dissertation, University of Chicago, 1925, original. *Symbolik und Realitat*, reprint#2, introduction & trans. A. Eschbach. Frankfurt: Suhrkamp, 1981.
- Moussaieff Masson, J. & McCarthy, S. (1995). *When Elephants Weep: The Emotional Lives of Animals* (New York: Delta/Dell).
- Müller, F.M. (1873). *Introduction to the Science of Religion: Four Lectures Delivered at the Royal Institution, with Two Essays on False Analogies, and the Philosophy of Mythology* (London: Longmans, Green, & Co.).
- Needleman, J. (1975). *A Sense of the Cosmos: The Encounter of Modern Science and Ancient Truth* (New York & London: Arkana).
- Neumann, E. (1954). *The Origins and History of Consciousness*, trans. R.F.C. Hull (Princeton: Princeton UP, Bollingen Foundation). Original in German 1949.
- Neumann, E. (1983). *The Great Mother*, trans. R. Manheim (Princeton: Princeton UP, Bollingen Foundation). Original in German 1955.
- Noble, W. & Davidson, I. (1991). 'The evolutionary emergence of modern human behaviour — language and its archeology', *Man*, 26, pp. 223-253.
- Noble, W. & Davidson, I. (1996). *Human Language, Evolution, and Mind: A Psychological and Archeological Inquiry* (Cambridge UK: Cambridge UP).
- Ong, W.J. (1982). *Orality & Literacy: The Technologizing of the Word* (London & New York: Routledge).
- Pattee, H.H. (1995). 'Evolving self-reference: Matter, symbols, and semantic closure', *Communication and Cognition — Artificial Intelligence*, 12, (1-2), pp. 9-27. Special Issue: *Self-Reference in Biological and Cognitive Systems*, L. Rocha, ed.
- Pepperberg, I.M. (2000). *The Alex Studies: Cognitive and Communicative Abilities of Grey Parrots* (Cambridge MA: Harvard UP).
- Percy, W. (1975). *The Message in the Bottle: How Queer Man is, How Queer Language is, and What One has to do with the Other* (New York: Noonday).

- Pfeiffer, J.E. (1982). *The Creative Explosion: An Inquiry into the Origins of Art and Religion* (New York: Harper & Row).
- Pinker, S. (1994). *The Language Instinct: How the Mind Creates Language* (New York: William Morrow).
- Postman, N. (1996). *The End of Education: Redefining the Value of School* (New York: Vintage).
- Povinelli, D. (1999). 'Chimps or chumps?', *The Economist* (Dec 11, 1999), p. 81.
- Premack, D. (2004). 'Is language the key to human intelligence?', *Science*, 303, pp. 318-320.
- Ricoeur, P. (1967). *The Symbolism of Evil*, trans. E. Buchanan (Boston: Beacon).
- Ricoeur, P. (1998). *Courage and Conviction: Conversations with François Azouvi and Marc de Launay*, trans. K. Blamey (New York: Columbia UP).
- Rosenthal, D. (1993). 'State consciousness and transitive consciousness', *Consciousness and Cognition*, 2, pp. 355-363.
- Ruhlen, M. (1994). *The Origin of Language: Tracing the Evolution of the Mother Tongue* (New York: John Wiley & Sons).
- Saussure, F. de (1959). *Course in General Linguistics*, eds. C. Bally & A. Sechehaye, trans. W. Baskin (New York: Philosophical Library). Original in French 1916.
- Savage-Rumbaugh, S. & Lewin, R. (1994). *Kanzi: The Ape at the Brink of the Human Mind* (New York: John Wiley & Sons).
- Scarre, C., ed. (with Smithsonian writers) (1993). *Smithsonian Timelines of the Ancient World: A Visual Chronology from the Origins of Life to AD 1500* (New York: Dorling-Kindersley).
- Sheets-Johnstone, M. (2002). 'Size, power, death: Constituents in the making of human morality', *Journal of Consciousness Studies*, 9 (2), pp. 49-67.
- Sommer, J.D. (1999). 'The Shanidar IV "flower burial": A reevaluation of Neanderthal burial ritual', *Cambridge Archaeological Journal*, 9: pp. 127-129.
- Sorenson, E.R. (1998). 'Pre-conquest consciousness', in *Tribal Epistemologies: Essays in the Philosophy of Anthropology*, ed. H. Wautischer (Aldershot UK: Avebury). pp. 79-115.
- Sproul, B. (1979). *Primal Myths: Creating the World* (New York: Harper & Row).



- Stevens, W. (1954). *The Collected Poems* (New York: Vintage). Copyright renewed 1982, H. Stevens. 'Sunday Morning' originally in *Harmonium*, 1923.
- Stringer, C. (2002). '[Modern human origins: Prospects and progress](#)', *Philosophical Transactions of the Royal Society of London (B)*, 357, pp. 563-579.
- Tattersall, I. (1998). *Becoming Human: Evolution and Human Uniqueness* (San Diego: Harvest/Harcourt Brace).
- Tattersall, I. (2002). *The Monkey in the Mirror: Essays on the Science of What Makes Us Human* (New York: Harcourt Brace).
- Teilhard de Chardin, P. (1959). *The Phenomenon of Man*, trans. B. Wall (London: William Collins Sons).
- Texier, P., Porraz, G., Parkington, J., Rigaud, J., Poggenpoel, C., Miller, C., Tribolo, C., Cartwright, C., Coudenneau, A., Klein, R., Steele, T., & Verna, C. (2010). 'A Howiesons Poort tradition of engraving ostrich eggshell containers dated to 60,000 years ago at Diepkloof Rock Shelter, South Africa'. *Proceedings of the National Academy of Sciences* DOI: [10.1073/pnas.0913047107](https://doi.org/10.1073/pnas.0913047107)
- Trask, R.L. (1995). *Language: The Basics* (London & New York: Routledge).
- Veyne, P. (1988). *Did the Greeks Believe in Their Myths?* trans. P. Wissing (Chicago & London: UP Chicago).
- Von Franz, M-L (1995). *Creation Myths: Patterns of Creativity Mirrored in Creation Myths*, revised edition (New York: Shambala).
- Wade, N. (2006). *Before the Dawn: Recovering the Lost History of Our Ancestors* (New York: Penguin).
- Watkins, C. (1982). 'Indo-European and the Indo-Europeans', appendix in *Houghton Mifflin Canadian Dictionary of the English Language*, ed. W. Morris (Markham ON: Houghton Mifflin Canada), pp. 1496-1550.
- Watts, A.W. (1963). Editor's Foreword, in C.H. Long, *Alpha: The Myths of Creation*, pp. xiii-xiv (New York: George Braziller).
- Wells, S. (2002). *The Journey of Man: A Genetic Odyssey* (Princeton: Princeton UP).
- Wells, S. (2007). *Deep Ancestry: Inside the Genographic Project*. National Geographic Society.
- Wills, C. (1993). *The Runaway Brain: The Evolution of Human Uniqueness* (London: HarperCollins).

© Gregory M. Nixon, 2010