

**Notes
for a
New Mind**

William C. Dell

Universal Publishers
Boca Raton, Florida
USA • 2004

Notes for a New Mind

Copyright © 2005 William C. Dell
All rights reserved.

Universal Publishers
Boca Raton, Florida • USA
2005

ISBN: 1-58112- 473-2

www.universal-publishers.com

TO

Linda, who understands the possibilities

ACKNOWLEDGMENTS

Grateful acknowledgment is made for permission to use the following copyrighted material.

One figure from Freeman LG, Echegaray JG, El Juyo: A 14,000-Year-Old Sanctuary from Northern Spain, *History Of Religions* 21: 1 (1981) pp. 1-19. Reprinted by permission of The University of Chicago Press. Copyright 1981 by The University of Chicago.

From *Selected Poems* by Rainer Maria Rilke: one poem 'Initiation' reprinted by permission of The University of California Press. Copyright 1940, 1968 by C. F. MacIntyre.

From *The Massachusetts Review*, Volume 06, Number 01: One poem 'Big Mountain' by William C. Dell. Copyright 1964 by *The Massachusetts Review*.

The author wishes to thank Dr. Stephen M. Johnson, Montclair State University, for his praise and encouragement of this project, and his wife, Linda, for her faith, courage and support.

INITIATION

Whoever you are, go out into the evening,
leaving your room, of which you know each bit;
your house is the last before the infinite,
whoever you are.

Then with your eyes that wearily
scarce lift themselves from the worn-out door-stone
slowly you raise a shadowy black tree
and fix it on the sky: slender, alone.

And you have made the world (and it shall grow
and ripen as a word, unspoken, still).

When you have grasped its meaning with your will,
then tenderly your eyes will let it go...

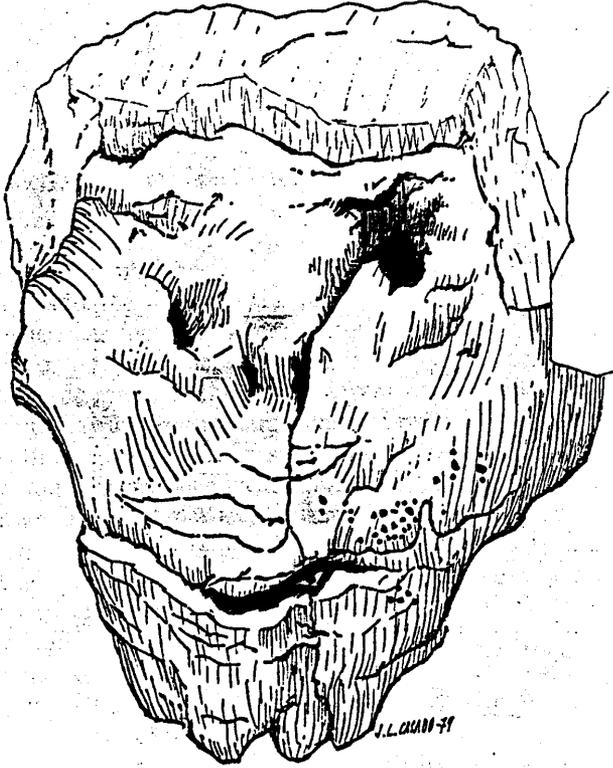
_____Rainer Maria Rilke
(Translated by C. F. MacIntyre)

CONTENTS

<i>Frontispiece: The El Juyo Face</i>	<i>i</i>
<i>Preface</i>	<i>ii</i>
<i>Chapter One: The Split Brain</i>	<i>1</i>
<i>Chapter Two: The Fall</i>	<i>10</i>
<i>Chapter Three: The Three Ages of Man</i>	<i>27</i>
<i>Chapter Four: The New Mind</i>	<i>44</i>
<i>Chapter Five: The Next Step</i>	<i>56</i>
<i>Chapter Six: The Deconstruction</i>	<i>62</i>
<i>Chapter Seven: Laterals</i>	<i>70</i>
<i>Chapter Eight: The Superspatial Channel</i>	<i>76</i>
<i>Chapter Nine: The Watched Pot Never Boils</i>	<i>89</i>
<i>Endnotes</i>	<i>97</i>

Right

Left



The El Juyo Face _____ drawing by J. L. Casado in
"History of Religions," August 1981. (See endnote 16)

PREFACE

Most descriptions of human nature *end* with the observation that if mankind is to evolve, the inherent duality of consciousness must be resolved. The gap between the one and the many must be bridged. In the structure of mind itself, this resolution can be found.

Much has already been written about the two halves of the brain, and their opposite functions. As a starting point, chapter one summarizes the salient features of this important research. In its neuroanatomy, the human brain is clearly dichotomized.

Furthermore, throughout history, one side of the brain appears to be favored over the other. Chapter two explores the evidence for this. Indeed, the Fall of man may record the moment when that tendency is reversed.

It is the fusion of mental functions, however, which provides the potential for a new mind. Though there may be many precursors, William Wordsworth is, perhaps, its most eloquent exponent. Chapter three examines his process.

A new model of consciousness is offered in chapter four. Traditional duality disappears. Man becomes God becomes man.

Moving into the next millennium, we are on the verge of stepping into an altogether different mind. Our survival may depend on it. Otherwise, we are dinosaurs.

Chapter five examines the possibility of a new mind emerging from the split brain in the modern world. Chapter six sets forth its new myth: The Deconstruction. Chapter seven, Laterals, suggests that the resolution of duality is, perhaps, not the last issue of mind after all, but that the new mind, when opened, is in the multiform periphery. Chapter eight, The Superspatial Channel, confronts the question, am I more than my brain? Chapter nine concludes that *what you see is what you get*.

CHAPTER ONE

CHAPTER ONE: THE SPLIT BRAIN

Duality is the root of all philosophy and religion, ancient and modern. This dichotomy in consciousness may well be produced by the brain's neuroanatomy, which is divided into two hemispheres: the right and the left. Man, it seems, has two minds in one body.

Specialized for different mental processes, the two hemispheres are joined together by the corpus callosum, the largest fiber system in the brain, the function of which is to keep them synchronized. Cooperation between the hemispheres, nevertheless, is not inborn or complete at birth but improves as the child matures through age fifteen. Faulty connections between right and left hemispheres can cause mental and physical aberrations and conflict. Furthermore, lateral specialization in the brain appears to be unique to human beings and associated with the development of language, which has traditionally separated man from animals.

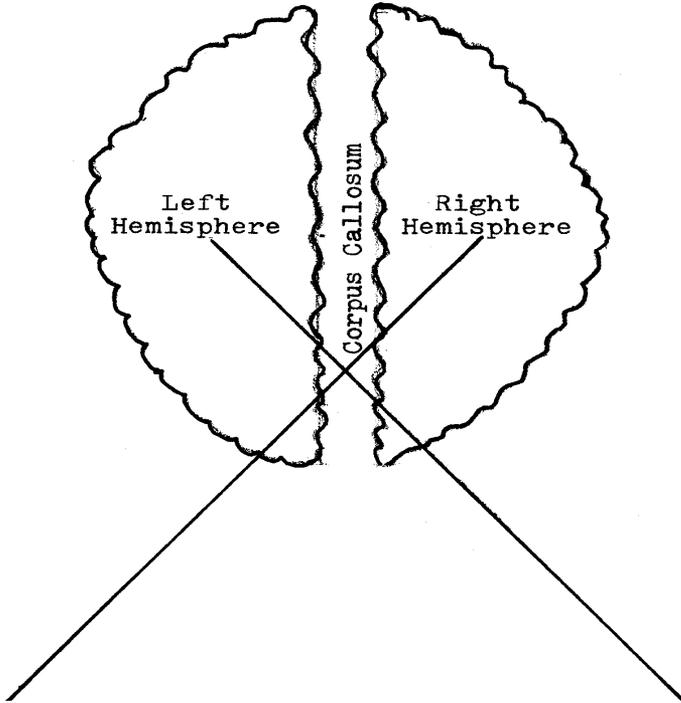
The right and left brain in man process information in two completely opposite ways. Both hemispheres receive the same stimuli but produce different results. The left processes the part, while the right processes the whole. The former is verbal and analytical, especially adapted to dealing with the modern world of technology, science and language. The latter is holistic and grasps overall patterns and relationships. Getting the appropriate mode for a given task, without interference between hemispheres, creates the highest intelligence. One mind compliments, balances, informs and enhances the other without conflict. In this manner, the expert musician reads the score in the left brain and, simultaneously, interprets it in the right.

The left hemisphere is dominant, however, in most of the population. Why? Modern culture holds in highest esteem verbal language and the analytical process, and has a predilection for logical simplicity over diffusion. As a result, the educational system is geared, first and foremost, to train the left brain. It is here intelligence and aptitude are measured almost exclusively, in effect, discriminating against the other half of the brain. Language development and verbal ability are important, but what price is paid for these prizes?

An animal with perfect bilateral symmetry cannot tell left from right. Cerebral dominance in man produces handedness. The right hemisphere is associated with the left hand, the left hemisphere with the right hand. Preference for the left brain is reflected in the fact

that the vast majority of people (90-95%) are right-handed. When something is correct, we say it is *right*; whereas the left hand is supposed to be awkward and *guache*. These divisions are suggested by the diagram which follows.

Lateral Specialization in the Brain



Left Hand	-----	Right Hand
Left Side	-----	Right Side
Diffuse	-----	Discrete
Spatial	-----	Verbal
Relational	-----	Sequential
Intuitive	-----	Analytical
Artistic	-----	Scientific
Sensuous	-----	Intellectual
Non-linear	-----	Linear

Emphasizing reading above other mental activities in early childhood contributes to left hemisphere dominance. Children are not ready neurologically to read before age seven. Even then, it should not be reinforced more than right hemisphere functions. Lavishing its attention principally on verbal, sequential, analytical skills, the educational process, however, makes the left brain much more important than the right. Yet both hemispheres are equal and complementary, and learning difficulties can arise with too much emphasis on one over the other. Many students, for example, who master easily the elementary stages of arithmetic, functions of the left hemisphere, are hopelessly lost in higher mathematics, which is spatial and intuitive, because the right brain is not properly prepared.

When for some reason the hemispheres are to a certain extent deliberately or naturally dissociated, as in sleep, or when the corpus callosum is inhibited or severed, the two minds take on a life of their own. Could this dissociation provide a clue to the physical location of the unconscious, undetected since Freud? Right hemisphere mental operations—non-verbal logic, visual imagery, simultaneity, non-linear progression—resemble those of dreams. Perhaps the right brain provides an anatomical locus for unconscious mentality.⁽¹⁾

Split-brain experiments help localize the functions of the two hemispheres. The eyes, for instance, communicate with both hemispheres. Stimuli in the right visual field go to the left hemisphere, while stimuli in the left visual field go to the right hemisphere. When the corpus callosum is cut, the patient cannot describe what he sees in the left visual field, because the right hemisphere is disconnected from the speech center in the left hemisphere.⁽²⁾

There are many tests for cerebral dominance. One is very simple and easy to apply. The direction of eye movements indicates which hemisphere is operating. If a subject is asked a neutral question which could be handled in either hemisphere, such as, "What is the meaning of the proverb, 'Better a bad peace than a good war?'" the direction to which the subject first glances in response reveals which hemisphere he is using primarily. If there is a quick glance to the left, it is the right hemisphere; whereas a glance to the right reveals the left hemisphere. In this manner, "right movers" and "left movers" show their hemispherical bias.⁽³⁾

Certain forms of dyslexia or reading impairment may be caused by mixed dominance. The hemispheres can complement, but not substitute for one another. If the student does not use the appropriate mode for the given task in the curriculum, he will encounter difficulties. This is especially true in those areas requiring verbal skills. To a certain extent, inappropriate functioning of the hemispheres could be produced by psychological and environmental factors. The middle-class, for instance, employs the verbal-analytical mode much more than the urban poor, which favors the spatial-nonverbal. As a result, ghetto children seem to have greater reading related problems than middle-class children.

Nevertheless, the deeper causes of dyslexia in both social groups are probably physiological. An autopsy of a dyslexic man done recently at Beth Israel Hospital in Boston lends credence to this argument. When the brain was removed and examined, researchers found specific tissue abnormalities in the left cerebral hemisphere; while the remainder of the brain, including the right hemisphere, appeared in order.⁽⁴⁾

Hemispherical dysfunction may also be linked to schizophrenia and manic-depressive psychosis. Both hemispheres in their separate but complementary roles check each other. Damage in the left lobe can release the right from inhibiting control, inducing the hallucinations, distortion and ambivalence characteristic of schizophrenia. Similarly, disturbance in the right lobe can result in psychotic depressive pathology. Such mental disorders would, in addition, be intensified by abnormal communication between hemispheres. Autopsies of schizophrenics have shown that the corpus callosum tends to be thicker than in normal brains.⁽⁵⁾

CREATIVITY AND THE MYSTIC EXPERIENCE

Interhemispheric collaboration may be the source of creative inspiration. Albert Rothenberg, professor of psychiatry at the University of Connecticut, has proposed, after interviewing many prominent creative people, that all share a common mental process which he calls Janusian thinking. Janus was the Roman god of many faces who could look in opposite directions at the same time. Janusian thinking, then, is the ability to regard, simultaneously, opposing ideas, images or modes as equally true, leading to new and original formulations. The apparent neurological vehicle for this

creative process is the interplay between the left and right hemispheres. One of the best illustrations of Janusian thinking, according to Rothenberg, is Albert Einstein's description of the mental process which generated his general theory of relativity. Einstein noted it was holding in mind the equivalence of motion and rest that led to this great discovery.⁽⁶⁾ Perhaps the great concern artists have for the correspondence of form and content also indicates the divine Janus at work. In fact, everywhere in the physical world objects and processes, and their exact opposites, are equally capable of existing, as in the DNA double helix, composed of two similar but spatially opposed forms.⁽⁷⁾ This conservation of parity throughout nature may be the very heart of its creative force.

A radical use of the creative process, according to Arthur Deikman, produces the mystic experience. This involves the interaction of two modes of consciousness. The active mode (resembling the function of the left hemisphere) sequences, conceptualizes and utilizes perceptions. It acts on the environment. The receptive mode (resembling the right hemisphere) registers the diffusion and patterns of sensory input. It takes in the environment. The active mode dominates. Its focal point is a separate, personal self in linear time—past, present and future; while the receptive mode is oriented more in the present, expanded moment of experience, where the separate self fades into one of many perceptions. When the active mode is blocked, as in a gap in the sequence, a contradiction in data, or in an unanswered question, a shift takes place to the receptive mode, increasing sensory intensity. In a flash, a new configuration can appear as an intuitive leap. Then the new knowledge is “realized” by a shift back to the active mode which conceptualizes the insight and integrates it into the sequence. Contemplation, meditation and renunciation, in their various forms, manipulate attention to block the active mode and enhance the receptive mode producing profound, holistic moments of deep intuition associated with the mystic experience and the transcendence of self.⁽⁸⁾

SEX DIFFERENCES

Men and women are somewhat different in the lateralization of their brains. Female mental functions are less localized into one or the other hemisphere than in males.⁽⁹⁾ As a result, women can be

more intellectually flexible. On the other hand, greater localization in males produces a more functionally balanced brain. At Purdue University, researchers positioned electrodes on student's scalps during the performance of mental tests. The results indicated that boys tended appropriately to use the left hemisphere for verbal/analytical tasks and the right hemisphere for spatial tasks, while girls tended to use the left hemisphere for all the tasks.⁽¹⁰⁾

That men appear to excel in numerical reasoning and spatial judgment, women in verbal skills and rote memory, may be due to the lesser degree of functional asymmetry in women. Camilla Perrson Benbow and John C. Stanley, in a study at John Hopkins of 7th and 8th grades, observed that boys have a decided advantage over girls in mathematical capacity, though both sexes received identical mathematical training.⁽¹¹⁾ In the past, such mental differences between the sexes were explained as a product of environmental, social, and cultural conditions. Boys, for instance, develop spatial abilities at an early age through building blocks and using toys requiring the large muscles; whereas girls are encouraged in activities involving symbolic processing, such as coloring, printing, drawing. Intellectual differences between men and women, however, may not be entirely explained by external factors alone. There are perhaps, innate neurological factors to consider as well.

Actually, a wide variation exists between the sexes in respect to hemispherical specialization. Right-handed men are the most asymmetrical. They tend to be more analytical, linear and categorical. Women, in general, and all left-handers, have greater diffuse specialization. But it is the complementarity in human nature of male and female mental processes, outside sexist stereotypes, that is of major importance.

CULTURAL DIFFERENCES

Entire cultures may differ as to hemispherical orientation. The Trobriand Islanders, for example, favor right brain mentality over the left. It is the non-linear that is valued; the linear is despicable. In their language, the verb *to be* does not exist because everything *is*; consequently no adjectives, tenses, or qualifications are required. Only patterns in the larger whole are understood. No series of events or temporal connections are made, no means and ends, no causal or purposeful relationships, no comparisons.⁽¹²⁾

Solomon H. Katz, of the University of Pennsylvania Museum, has noted a similar orientation to the right hemisphere among the Inuit Eskimos who have a highly developed visual/spatial capacity, probably as an adaptation for survival in the Arctic. They are famous for their sculpture, maps, ability to find their way when lost, and integration with the environment. Inuit soapstone and whalebone sculptures seem to float and flow, timeless, in space without solid, linear position. Moreover, a large degree of hemispherical collaboration was observed among the carvers. The left hand holds the work, mostly in the left visual field (right hemisphere), and maneuvers its progress; while the right hand attends to the fine, analytical detail. When teaching their skills, the Inuits prefer demonstration to verbal instruction.⁽¹³⁾

Different cultures adopt one mental mode over the other. In the West, the verbal and linear predominates. Traditionally, the East has esteemed the spatial and relational. Hemispherical dominance, as a whole, appears to be a learned, cultural convention.

A beautiful mental parity is at work in the normal, functioning brain. Incoming stimuli are analyzed and processed in their discrete parts, as well as related and shaped to the overall pattern. Each process is the equal, but opposite, complement to the other. The right hemisphere is holistic and diffuse, stores dissimilar bits of information, and may cope first with unfamiliar and novel events placing them in familiar contexts; while the left hemisphere has the critical capacity to examine and express those relationships, producing, perhaps, new insights. In this sense, the right brain contains the wisdom of experience and the left brain is the seat of conceptualization.

The ouija board, because it is spatial and kinetic, may offer a good illustration of how the right hemisphere operates. One literally commands the non-verbal mode to speak by asking the board a question, and, as if by magic, the ouija glass *moves* through the letters to spell out the message. Use of the ouija board limits the variables so that the only response available to the brain regarding a question is kinetic and spatial. This is akin to saying about a perplexing problem that you will *sleep* on it. Next morning, the answer is crystal clear. It has been worked out non-verbally during the night through the visual/spatial thinking of dream imagery.

Both hemispheres represent independent means of inquiry. One should not impede the other, but check, extend, and enhance it; yet there is often conflict. Some is caused by neurological damage and impairment. A major source of dissonance, however, is the educational system which favors the left hemisphere, mitigating against creativity and genius. Daily life activities do not require much original effort. The verbal mode gets more reinforcement because it most easily manipulates the ordinary environment. When the right hemisphere is somehow released from left hemisphere dominance, as may happen through drug inducement, hallucinations and the feeling of being “spaced out” are often reported.

The two sides of the brain are, in fact, equipotential. Right-handed people are specialized for language in the left brain, and for visual imagery and spatial relationships in the right brain, but the issue is not so straight forward for left-handers. For them, specialization in the hemispheres may be reversed. This can be readily measured by writing style. Left-handers who hook their hand above the line of writing have normal specialization; whereas those who write in the noninverted position below the line are verbal in the right hemisphere and spatial in the left. About 40 percent of left-handed persons have opposite brain organization.⁽¹⁴⁾

Although either side of the brain can initiate and support the full range of mental functions, a still unknown mechanism channels mental capacities, on the whole, into the typical left/right orientation. This may be linked to handedness developing out of early tool making. Most early tool makers, it seems, were right-handed. Further refinements of tools, wrought by the right hand connected to the left hemisphere, led to greater asymmetry, and language would tend to develop on the more specialized side of the brain.⁽¹⁵⁾

How the initial equipotential of the hemispheres is exploited is probably culture-dependent. In a completely unbiased environment, there might be an even distribution of left-handers and right-handers. Acquisition of speech in the left hemisphere, nonetheless, begins at age two for nearly all people. Lateral specialization of the brain in two equally opposite modes is a trait unique to the human species, and may also be the source of all its mental agonies and ecstasies.

CHAPTER TWO

“These are the roots of rhythm,
and the roots of rhythm remain.”

_____Paul Simon

CHAPTER TWO: THE FALL

Prehistoric man was right-brained. His notation was spatial, appearing first as lunar and solar scratchings on bone. These patterns were also expressed as rhythms in speech and music. The basis of ancient art, therefore, was number. That application to building produced the temple. Ancient man seems to have associated himself with the rhythms and patterns of nature, resulting in little, if any, self-consciousness. Everything accorded to observed order from heaven. The fall from this state of Grace was inevitable. Man must be self-conscious. This notation is left-brained. With the Greeks, the transition from right to left brain was complete.

Guarding the ancient, 14,000-year-old temple at El Juyo Cave in northern Spain, the oldest known religious shrine, is a face, half man, half animal, sculpted in stone.⁽¹⁶⁾ (frontispiece) A natural fissure divides the rock in half. On the right side, the face is a man, with mustache and beard; on the left side, the face is a carnivorous animal, a lion or leopard. Apparently, the consciousness of halfness – in this case, half man, half beast was not lost on the ancients. The left side might be understood to represent the instinctive, intuitive part of human nature; the right side to represent the more controlled and civilized part. That this duality is fused in one head sculpted 14,000 years ago to guard the temple suggests not only a supernatural being or god, who has reconciled within himself opposed principles, but the face of the human brain itself. Furthermore, the face at El Juyo could indicate a biased transition in human nature: the right or domesticated side is good-it is civilized; while the left or bestial side is bad.

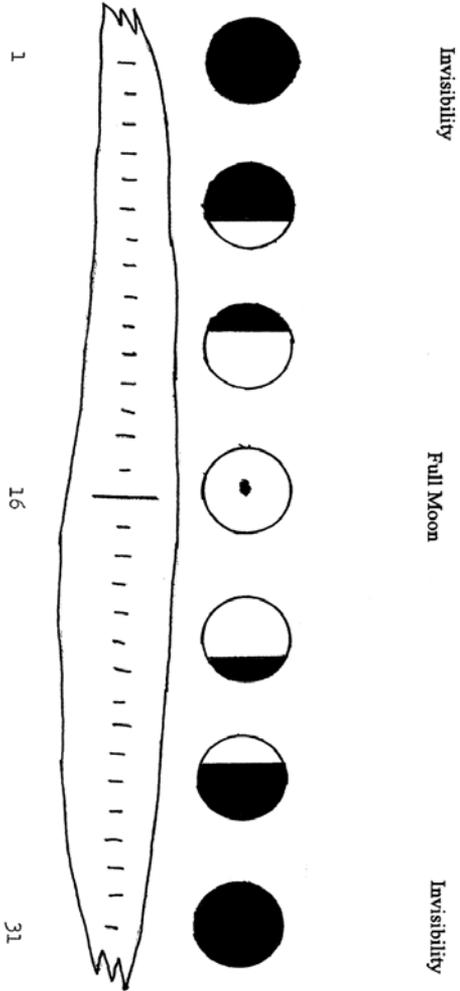
Paleolithic man is famous for his art. For the most part, however, he appears to have concerned himself with images of animals and plants, which he painted and engraved on artifacts, and the walls of caves in extraordinary detail and vivid color. These paintings and engravings often show strange scratchings or “doodles.” According to Harvard University researcher Alexander Marchak, who has studied 30,000 year-old engravings on bone, these markings are notations, which indicate lunar and solar cycles connected to seasonal variations in plants and animals.⁽¹⁷⁾

The lunar pattern appears to be older and more predominant, possibly because it happens faster and could be more quickly

recognized. The lunar count is based on the first day of invisibility to the full moon, and from the full moon back to the first day of invisibility, roughly thirty days, represented by hatch marks. A generalized version of this notation might be illustrated as follows. (See diagram)

Against the phases of the moon a story unfolded, associated with the female, concerning the natural cycles of life, death and rebirth.

Lunar Notation



This illustration is a simple generalization of Alexander Marchak's drawings and pictures of the lunar notation on ancient bones.¹⁸ The phases of the moon appear above the illustration as references to the hatch marks.

Since the female period approximated the rhythm of lunar notation, the pregnant woman was the first God. Amongst the oldest known religious artifacts are the tiny “goddess” figures spread throughout Europe 30,000 years ago. The goddess in her pregnancy is the promulgation of all life, animal and vegetable, in their seasons. As the moon and the seasons come and go, so does life within the goddess. Her myth or story, as a result, takes on an element of sacrifice and death.

Later, the goddess finds a male consort, the sun to her moon, and solar notation gains in importance expressing not only phases of the moon and seasons, but many other observations of natural periods in the planets and stars. Lunar and solar notation came together in the great prehistoric temples of man, from the painted caves to Stonehenge, where the sacred center was, among other things, a calendar of moon months and solar years. The story or myth associated with the notation, and its mysterious sexuality, is probably reflected in that most ancient of all verbal fossils, The Grail Legend, which runs so deep in the collective mind. The importance of the cup and lance to the Grail story is paralleled by the vulva and phallus, so often found engraved on the bones and stones.

The most outstanding feature of the lunar/solar story, however, is that it is based in number. According to psychologist Jean Piaget, the developing child learns to think *spatially*, in number, prior to verbalizing such concepts. This may well be a key to understanding the development of human culture which, it seems, begins in the right brain and proceeds to the left.

Traditionally, human culture is thought to commence with verbalization and myth-making; yet inherent in the stories, as they appear in literature and the arts, are the rhythms and patterns of numbers. This is the basis of the great, ancient, oral tradition. Wisdom or poetry was the music of number in speech. Music and number pass most easily from culture to culture. The oral tradition is perhaps best preserved in the venerable songs of the Hindu *Vedas*. Antonio T. de Nicolás, in his study of the Rg Veda, observes that “if we filter our interpretation of the Rg Veda through the *names* of gods and dragons, we will inevitably find ourselves left with the sludge much of Western tradition attaches to the *theory of names*... But if we, instead, set ourselves the task of fitting our thoughts to the context of the text, we find ourselves facing moving webs, moving

structures; each structure a rhythm through which a body-world appears—”(19)

This is the music of the Vedas. Sound interiorizes the mind or muse, which, through introspection, can *hear* OM, the primary substance of all things, represented by *Do* in the musical scale. The structure of the physical world is infinite in tone. By selecting a finite number of tones, a musician portrays the world. Rg Vedic poets were concerned with the exact spatial location and number in all things.⁽²⁰⁾ According to Ernest G. McClain, who has studied the musical mathematics of the Vedas, “number embodied in sound was the medium through which the universe manifest was a universe as-sung.”⁽²¹⁾

Vedic music makes certain numbers prominent. God is one, totality, a hermaphrodite, *Do*. He can procreate only through two, his daughter or the female; thus the incest theme pervades the Vedas. Since odd numbers introduce new tones in the musical scales, they are male, and the even numbers are female.

Do	Re	Mi	Fa	Sol	La	Ti	Do
1	2	3	4	5	6	7	

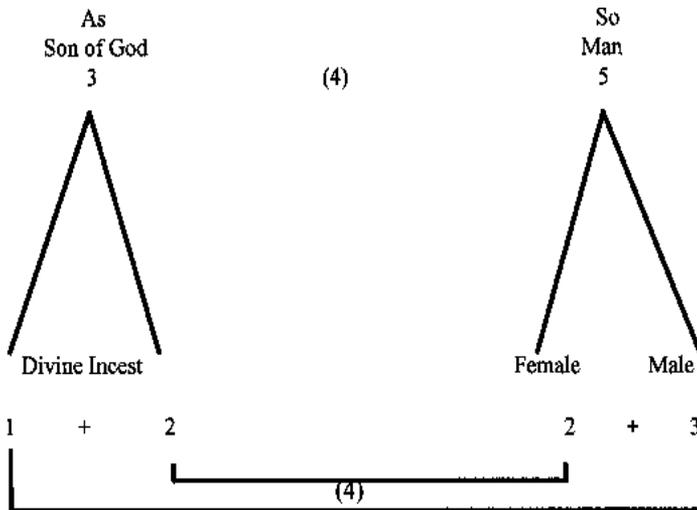
The reciprocity between male and female holds the octaves together.

Because it is the sum of the musical octave, ten is divine. The seven tones (reflected in the seven-day week), plus the semitone between mi/fa and the semitone between ti/do, and *do* of the next octave, equals ten. The number ten, then, is the forever cycling octave on all scales, which *makes* (Brahma), *extends* (Vishnu) and *unmakes* (Shiva) the worlds. This Holy trinity is the fundamental principle of the universe.

The vision of the Vedas is that all octaves, all worlds, every tuning, every point-of-view, is valid. Such music, de Nicolás says, requires sacrifice. *Asat* (nothingness) *sat* (being) and *yajna* (sacrifice) are endless cycles in the portrayal of the universe, perhaps first recognized in the periods of the moon. What is necessary is that any particular frame of reference be sacrificed ultimately to the overall continuum, or embodied vision (*rta dbil*), in which all things are possible. This holistic *yajna* is reminiscent of the function of the right brain, which suggests that indeed the wisdom of the Rg Veda runs deep in the development of man.

The gods are numbers. Divine Mother is two. She gives birth to the octave from the original unity of *Do.* Three is the Divine Son. The incest of (1) plus (2) produces (3), the Son, who creates the world. The prime number three is deified as the Sumerian-Babylonian *Ea-Enki*, the Egyptian-Greek *Thoth*, the Hindu *Krishna*, and the Christian *Christ*. The Divine Son (3) plus the Divine Female(2) equals five, the human number or father. Six is perfection. It is the sum and product of all its factors, for $1+2+3 = 6$, and $1 \times 2 \times 3 = 6$. The world is completed on the sixth day. Seven is the traditional number of the mysterious and sacred, as in the seven days of creation and the musical octave.

Four is the holy number of balance which separates the human from the divine. The celestial (sun) and the terrestrial (moon) were formed on the fourth day of creation.



This sacred proportion is perhaps also reflected in the perfectly balanced poetic sentence or epic simile, which served the structure of ancient, heroic poetry, where man strove with the gods. The following example is from the old Persian legend of *Sobrab and Rustim*, as given by Mathew Arnold. (The italics are mine.)

As, in the country, on a morn in June,
 When the dew glistens on the pearléd ears,
 A shiver runs through the deep corn for joy—
So, when they heard what Peran-Wisa said,
 A thrill through all the Tartar squadrons ran
 Of pride and hope for Sohrab, whom they loved.

Between *as* and *so* in epic simile is a balance, sometimes stretched to great tension, through comparison-and-contrast. Though the balance separates, it also connects and does not break. No matter what happens in the struggles and upheavals of the dramatic action, this proportion is never lost, for the world would no longer make sense. As a result, the epic simile permeates the sentence structure of ancient, heroic poetry, articulating possibly the ultimate simile or balance between Heaven and earth, humanity and Divinity.

But *as* a troop of peddlers, from Cabool
 Cross underneath the Indian Caucasus,
 That vast sky-neighboring mountain of milk and snow,
 Crossing so high, that, as they mount, they pass
 Long flocks of traveling birds dead on the snow,
 Choked by the air, and scarce can they themselves
 Slake their parched throats with sugared mulberries—
 In single file they move, and stop their breath,
 For fear they should dislodge the overhanging snows—
So the pale Persians held their breath with fear.

(from Sohrab and Rustim)

Through progression, larger numbers became sacred, or gods for later cultures. They embedded in speech. This is called gematria, corresponding words and letters with numbers. The inner meaning of words, especially holy words, was carried within their structure by numbers as letters. The alphabets of ancient languages corresponded to specific numbers.

Numerical values for the Greek alphabet are given as follows.²²

A	B	Γ	Δ	E	F	Z	H	Θ
1	2	3	4	5	6	7	8	9
I	K	Λ	M	N	Ξ	O	Π	Q
10	20	30	40	50	60	70	80	90
P	Σ	T	Υ	Φ	X	Ψ	Ω	ϑ
100	200	300	400	500	600	700	800	900

John Michell has shown by gematria the significance of many sacred numbers and divine names.⁽²³⁾ Because the number six is perfect, 666 reflects the perfect trinity of Divinity. By gematria, 666 is associated with the power of God in heaven, and old solar deities like Teitan and Phoebus. Divine Mother is 1080. She is connected to the spirit of earth and ancient, terrestrial goddesses such as Semele. The mysterious, Divine Trinity, and its essential dualism, is also reflected by 1080 in its virtual derivation from twice 7×77 . The Divine Son is 1746 or $666 + 1080$, corresponding by gematria to the mustard seed, the primal unit or event from which the world springs. It is fusion, the precious pearl of Mary. Together, these three sacred numbers of antiquity represent the beginning and the end, the alpha and omega.

$$666 \text{ or } 6+6+6 = 18, \text{ and } 1+8 = \textcircled{9}$$

$$1080 \text{ or } 10+8 = 18, \text{ and } 1+8 = \textcircled{9}$$

$$1746 \text{ or } 1+7+4+6 = 18, \text{ and } = \textcircled{9}$$

Nine is the end of the decade or octave, which begins again at *Do*. The messenger of the gods, 353, by gematria is Hermes. He is the means of communication, the way, or road.