*Our birth is but a sleep and a forgetting;*

*The soul that rises in us, our life’s star,*

*Hath had elsewhere its setting,*

*and cometh from afar.*

*Not in entire forgetfulness,*

*And not in utter nakedness….*

*—W. Wordsworth*

**Chapter 2**

**Destiny and Forgetfulness: The Origins of Consciousness**

Beautiful myths surround our arrival in this world: myths of the close link between birth and death, myths of destiny and forgetfulness, and myths of a guardian spirit who is also part of us. As it turns out, these may not be merely fables, but the real stories of our beginnings. They more accurately describe our actual experience than the myths of modern Western medicine, and they also indicate that being born into humanity is more than a mere biological event.

A typical “myth” of life’s beginning is the story of Er that appears in Plato’s *Republic*. Er, a soldier who perished in battle, finds himself in the underworld where the dead exist along with the souls waiting to be born. He watches these unborn draw lots to determine the order in which they will be sent to earth, and pass by the three Fates who show them what their destinies will be. Then they must traverse a stiflingly hot terrain, at last arriving at a plain where they find water. Some drink deeply out of their terrible thirst, others, with more moderation. It hardly matters because this is the water of forgetfulness, so that to a greater or lesser degree, what the Fates have foretold and all else that has gone before vanishes from their minds. Wearily, they sink into sleep, but during the night, a cataclysmic storm cracks the sky with thunder, and rends the earth. In the midst of this frightful upheaval, they begin to shoot up like skyrockets to be born in the land of the living.

Every aspect of this story is replicated in myths from all over the world, myths that actually accord with the latest research on life before birth, however contrary to mainstream medical science they seem. The central ideas contained in these myths that now appear to have some validity are:

1. *The existence of consciousness before and after embodied life*. The idea that both the dead and the unborn might exist beyond the material order has a long history in reincarnation religions and other spiritual traditions. Prenatal and near-death research studies now indicate that consciousness may exist beyond the limits of the body’s lifetime.
2. *The idea of individual destiny, that each “soul” has its own fate*. The sense of individual destiny is present in many spiritual systems, whether it’s determined by a group of female divinities like the Fates, the Norns, or the Seven Hathors; by the predestination of Calvinism; by the interrelationship of the planets in astrology; or by the person’s own karma in Hinduism. According to these beliefs, some choices are ours to make, but others are kismet. Research now suggests that much of our lives is determined prior to birth by factors that have nothing to do with our genetic heritage.
3. *The inevitable but regrettable forgetfulness of all that preceded embodied life*. The idea that we knew the secrets of the universe and our own destiny present in many ancient cultures has not faded from modern thought. According to a contemporary Jewish tradition, the angel Lailah seals our cosmic knowledge from remembrance and from utterance by touching the baby’s mouth just before birth. Yet memories of special knowledge prior to birth are now routinely retrieved by clinicians. They have been obscured but not forgotten entirely.
4. *The co-existence of a spirit guardian related to the child*. Cultures all over the world believe that along with the body of the child, its spirit is born into the world in a somewhat separate identity. Sometimes this soul guardian is associated with the placenta (afterbirth), which may be named and buried in a sacred spot, ready to be invoked when the child needs guidance. It might be thought of as the “guardian angel” of popular Christianity, the *ba* of ancient Egyptians, the *fylgja* of Norse cultures, or the “genius” of the Romans. It is a vital source, an incorporeal and more perfect version of the self that helps and inspires. Researchers are now showing how this source and its wisdom can be accessed as a part of ourselves, perhaps more like the Higher Self, the Witness or soul in today’s parlance.

In this chapter, we’ll explore how each of these stories—so far from representing fantasies—actually correct our mainstream medical beliefs, which are now becoming another type of quaint folklore. These older “myths” remind us of truths we are rediscovering as we delve into the origins of consciousness. Individual consciousness *does* predate birth. Our prenatal time *does* shape our destinies more surely than almost anything else. We *do* largely forget the wisdom we possessed before, though it can be regained. And, we *do* have a source of consciousness that is a part of us yet not attached to the vagaries of our fate, an all-wise presence that is always with us. None of these assertions is wishful thinking or religious ideology. They are backed by a growing body of evidence from researchers all over the world. But first, let’s examine our culture’s own myths surrounding gestation and birth.

**The Myth of Modern Medicine**

Vast numbers of doctors, nurses, and parents believe newborns feel no pain. They circumcise infants and perform other types of pre- and neonatal surgery without anesthesia—something we wouldn’t do to animals! We treat newborns as if they lack intelligence and feeling, suctioning their noses and mouths with instruments, dropping stinging medicines into their eyes, pricking their heels, slapping and dangling them to make them breathe, tossing them onto cold steel scales and taking them away from their parents—the only people they’ve known—to stay in isolation. Small wonder Westerners think it’s normal for children to be born screaming! That’s *not* normal in other cultures where babies are born peaceful—even smiling—but a sign something is terribly wrong.

Mainstream Western obstetrics isn’t a cruel profession, but many of its traditions have become so entrenched that they are no longer examined critically. Most medical professionals focus only on the body’s form, so it is natural for them to assume that consciousness develops rather late in fetal life because the brain’s structures are not sufficient too sustain awareness until about the seventh month of gestation. According to such reasoning, even a newborn, since it lacks the basis for intelligence, is some dim, primitive life form, not yet fully human. The trouble is, fetal capabilities far outstrip the limitations of biology alone, as newer observations clearly demonstrate.

The fact is, seven-month fetuses are so smart they can play interactive games with people “on the outside.” Incredibly, mounting evidence shows that consciousness stretches back beyond conception. In other words, *who we are is not limited to our physical bodies, and consciousness is not limited to times when we have functioning brains*. This is most apparent at life’s edges—as we materialize, coming into life, and as we exit into death.

Here’s what the physical facts honored by medical science say. First, the fetal brain develops its full complement of cells between 16 and 20 weeks of gestation, yet the 20-week-old brain is smaller than a walnut because most of the cells’ structures are incomplete. The brain at birth is only one-fifth the size of an adult brain because the branching structures (axons and dendrites) that constitute the billions of intracellular connections necessary for higher functioning haven’t developed yet. Conceptual thought is believed to depend on this intracellular network, but virtually all of these connecting structures develop *after* birth, not before. That *should* mean the unborn are incapable of higher-order thinking because the “machinery” for it doesn’t exist.

Second, brain activity as measured by EEG monitors doesn’t occur until the fifth month of gestation, and even then, it’s partial and intermittent. The first brain waves show up as bioelectric bursts, like lightening flickering erratically over the otherwise dark surface of the brain, sometimes in one hemisphere, sometimes in the other. Brain wave patterns don’t become stable or synchronous across both hemispheres until almost the seventh month (26-28 weeks). Our ability to measure this kind of neuronal activity is quite sensitive: monitors can discern when the fetus is awake, sleeping, and even dreaming by alterations in EEG patterns. The fetus shows all three states by 30 weeks. Thus, the unborn do not have a normally functioning consciousness until the seventh month, and even then, brain structures are incomplete.

Despite the medical lore that consciousness isn’t possible, as early as 7-1/2 *weeks* the fetus reacts negatively to having its face touched with a filament. It twists, moving the head away and moving the arms and shoulders as if to push the filament away. From 10 weeks onward, researchers have observed what appear to be self-directed, voluntary movements of the hands to the head, face, and mouth, and grasping of the feet and the umbilical cord. Are these merely the unthinking motions associated with any animal, such as an ameba or a mollusk? Perhaps.

**A Crack in the Myth of the Dumb Fetus**

One reason brain cells don’t grow many of the branching axons and dendrites “necessary” for higher thought during gestation is because these typically develop in response to stimulation. Neuronal networks grow the most rapidly from birth to about age 5, as the child interacts with a new, constantly challenging environment. Brain development is slow before birth, not because the fetus is incapable of learning, *but because it doesn’t have very much to do in there!* Interactive games parents can play with their unborn have now changed all that. These games are actually prenatal stimulation programs based on communicating with the unborn through their developing sensory capabilities, especially sound, light, and movement.

It has long been known that the unborn can recognize sounds. They can hear in a technical sense once the cochlear nerves in the ear are complete at about 22 weeks. Before that, they can pick up sounds through vibration. They can learn—that is, remember and recognize—the cadences of music, poems and stories they hear repeatedly from inside the womb. The advantages to such learning seem obvious: auditory learning is thought to be one of the reasons musicians, who are performing and listening to music almost constantly, tend to have musically talented children.[[1]](#endnote-1) But parents may want to think carefully about this fetal capability, as some were surprised to see their newborns responding to soap opera themes! [[2]](#endnote-2) The capacity for auditory learning is so reliable that it can be used as a diagnostic tool for certain genetic abnormalities.[[3]](#endnote-3)

Regarding sight, the unborn are technically quite blind. [[4]](#endnote-4) Even at birth, the newborn’s vision is only about 20/600. Contrast sensitivity, focus and the ability to move the eyes in a coordinated fashion are demonstrably poor. In addition, the eyelids are fused shut for the 10th through the 26th weeks of gestation. However, a fetus can detect changes in light when they are strong enough.

Using these sensory abilities and the capacity for motion, researchers have created interactive games to develop fetal learning and bonding. Parents play a sequence of musical tones, shine a flashlight in a moving pattern across the mother’s abdomen, and tap at various places on her belly. The unborn child learns to track the sounds, taps and lights, tapping back as it follows the stimulus. If the usual pattern is changed, the baby reacts with puzzlement, adjusting to the change if a new pattern is repeated. There’s no question that the fetus is capable of intelligent activity by the third trimester.

Moreover, this type of interaction dramatically boosts the baby’s development in what is possibly the best “head start” program ever.[[5]](#endnote-5) Children who receive such prenatal stimulation are healthier and more evolved in a number of ways compared to those who do not. They have better Apgar scores (a measure of health at birth), easier births, more success at breastfeeding, significantly earlier movement, better coordination and balance, and better bonding with parents. Such children may even be born smiling and laughing. Developmental advantages continue to unfold and to be maintained as the infants mature. For instance, those whose parents played with them in the womb demonstrate higher scores in standard intelligence tests in areas such as verbal skills and abstract reasoning when they are old enough to enter school.[[6]](#endnote-6)

Of course the capacity for learning utilized in prenatal stimulation programs coincides with brain growth in the third trimester. Thus, while it indicates that fetuses can learn once their brains are working, it says little about earlier capabilities that exist, and these are much more mysterious.

A good example is the intelligent and aggressive response of some fetuses to amniocentesis. Typically conducted between 14 and 16 weeks of gestation, amniocentesis consists of a clinician, guided by ultrasound imagery, inserting a needle into the womb to withdraw a minute quantity of amniotic fluid for testing. Technically, this is a harmless procedure as the removal of such a tiny amount of fluid doesn’t affect the womb environment. However, the procedure routinely causes panic or “shock” reactions in the fetus shown by profound abnormalities in their movements and heart rates after amniocentesis occurs, sometimes for as long as two days. But not all fetuses respond so passively. Some have retreated from the needle—or even attacked it! Several reports have been published of fetuses who have located the needle with their arms and begun striking it repeatedly, even when it was withdrawn and re-inserted at another angle.[[7]](#endnote-7) Such actions suggest the fetus can form an intention and act on it *when continuous brain activity hasn’t begun yet!* Furthermore, they suggest that the fetus somehow knows where the needle is despite the fact that the eyes are sealed shut.

A purely biological model cannot resolve these mysteries. To address them, let’s turn first to one of the ancient myths to understand more about what the fetus knows.

**The Myth of Forgetfulness**

Whether the angel Lailah touches the lips of the unborn or a soul waiting to be born drinks the waters of forgetfulness, certain events before birth are never truly forgotten. This knowledge can be recalled under the right conditions because the body never forgets what it has learned. “Muscle memory” is familiar to anyone who has learned to ride a bicycle, play a musical instrument, or type on a keyboard. Research now suggests that all the body’s cells—not just neurons—have their own form of consciousness and memory carried in material like RNA, which transmits genetic memory and other information throughout the entire body.[[8]](#endnote-8)

Body memories can be revived in the same ways as other “lost” memories—hypnosis, free association, focusing, psychedelics—but particularly through methods that recreate the body’s early state or “speak” in the body’s “language:” massage, movement, touch, flotation and breathing. Here’s one example of an adult’s hypnotically-relived memory of his body’s sensations after he left the dim constriction of the womb:

Looking at things using my eyes is so much fun! The more I do it, the more fun it is. I love to see things move. I want to do so many things! I want to move but I don’t know how to move the way I want to…It feels so different to move now…easier. My hands and legs move so easily [after being cramped in the womb at full term]. All I can think of is to move them. There is no purpose; just to feel them move. I’m very awkward at it.[[9]](#endnote-9)

However, many early memories are unpleasant. Birth—including Cesarean surgery—is such a painful, frightening experience, even under the best of circumstances, that it is deeply imprinted on the body. Psychologists have long thought that this life-or-death struggle is so traumatic that it’s immediately repressed, hidden from the conscious mind through a kind of forgetfulness.

If the mind can forget, though, the body never does. Birth, for most of us, will be the most all-encompassing pain our bodies will ever endure. In a normal vaginal delivery, the mother’s contractions squeeze the baby with tremendous crushing constrictions, concentrating more than 20 pounds of pressure to the square inch across all the body’s surfaces. These unrelenting waves force the baby down the pelvis, turning it into a battering ram as they make the head beat its way through the tight, tough, muscular ring of the cervix (neck of the uterus), and then pound the bony opening of the pelvis. Blood flow to the head when it is in the birth canal can come to a complete standstill. If the head is large relative to the pelvis, it can be pressed so thin and the brain inside squeezed so much that the soft bones of the skull slide together until they overlap. These conditions can last from 15 to 24 hours—an eternity of pain. It literally feels as though the baby were dying, a memory likely to be deeply repressed.

But body memories can be relived with unquestionable veracity. People who have been hypnotically regressed to the period just after birth can accurately reproduce a series of reflexes known to be lost with age and so impossible to fake that they are routinely used for diagnostic purposes.[[10]](#endnote-10) People regressed to birth can accurately re-enact how their bodies moved through normal and difficult deliveries, including the positioning inside the womb, descent into the birth canal, and repositioning by medical personnel to facilitate birth.[[11]](#endnote-11) In so doing, many individual’s bodies recreate the bruising and indentations caused by birth procedures, such as the use of forceps. Needless to say, virtually nobody possesses such knowledge at a conscious level.

Regrettably, many of us re-enact the body memories of a painful birth unconsciously in self-destructive ways. [[12]](#endnote-12) Studies have shown that mothers who were given barbiturates, opiates or chloroform to anesthetize them during labor were more likely to have children who became drug addicts. Suicide eerily replicates traumatic birth conditions. Suicide by asphyxiation (hanging, strangulation, drowning and poisoning by gas) is more than four times higher for people who experienced strangulation at birth (for example, with the cord wrapped around the neck). Suicide by mechanical methods (firearms, jumping from heights, etc.) is correlated with mechanical problems at birth (such as breech presentation and forceps delivery).

The body also reenacts traumas of prenatal life that occurred much earlier. A therapist stumbled upon an uncanny pattern among teen-aged girls who had attempted suicide more than five times apiece. [[13]](#endnote-13) Each girl tried to kill herself at about the same time every year. He discovered that these suicide attempts coincided with the anniversaries of the dates when their mothers had tried to abort them, although none of the mothers had ever told their daughters about their attempted abortions, much less the dates. One of the most vivid examples of body memory came from the child of a mother who, after being abandoned by her husband when she was 8 weeks pregnant, tried repeatedly but unsuccessfully to bring about an abortion by herself using the hooked end of a wire coat hanger.[[14]](#endnote-14) She never told any of this to the son who was ultimately born to her. Yet the boy was violent in ways that perfectly mirrored the abortion attempts. He mutilated himself sadistically, including gouging his private parts with sharp metal objects, especially fishing hooks. In fact, he often complained that they were not big enough for what he wanted to do. As an adult, he was arrested more than 30 times for assault, usually for attacking sleeping people with a weapon made of a large metal hook welded to thick braid of wire.

Such earlier memories are just as reliable as those from birth. A psychiatrist who discovered that some phobias may derive from failed abortion methods independently verified not only the method used but also when it had occurred in the pregnancy by having her patients describe the relative size of their heads to their shoulders when the attempt took place.[[15]](#endnote-15) Head-to-shoulder proportions, virtually unknown to lay people, are reliable indicators of fetal age. She then matched these dates and methods with information she independently gathered from the mothers and medical records. The body never forgets.

That includes good memories, too. A study on twins showed that the way children related to each other in the womb continued after birth.[[16]](#endnote-16) Viewed using ultrasound imaging, one boy was always moving vigorously while his sister usually seemed passive and sleepy. Periodically he would move to the membrane and gently awaken her. When he did, the two would rub heads and feet, nuzzle cheek to cheek, stroke each other’s faces, and seem to hug and kiss before separating. A year after they were born, they continued to enjoy the same game, standing on either side of a curtain, laughingly and gently touching each other through it, just as they had in the womb.

**The Myth of Destiny**

Myths of fate often involve female archetypes like the Fates, the Norns or the Seven Hathors who know how long we will live, what major issues we will face during life, and how we will die. There may be some unconscious justice in this metaphor as the primary woman in our lives before birth—our mother—to a large part determines our destiny, as suggested by the imprinting of trauma on the body and its re-enactment in later life.

The traditional medical myth says that, barring accidents, life in the womb is uninterrupted bliss. A fairly mindless fetus—the original “blank slate” human being—floats around in an ideal environment, never hungry, thirsty, cold or hot. Every need is met as it arises. Now we know that that’s far from an accurate picture. The baby grows in biochemical lockstep with the mother. Any chemicals the mother is exposed to—alcohol, caffeine, street drugs, pharmaceuticals, nicotine, environmental toxins—bathe the fetus constantly in the amniotic fluid and flow into its body through her blood. But there are many more threats to fetal peace than chronic exposure to chemicals.

In early gestation, if the mother isn’t under stress, conditions in the womb can indeed be virtually ideal. But anytime she is emotionally upset, ill, or traumatized, the fetus feels it as her hormones charge her blood for a fight or flight response. It’s virtually impossible, even for the luckiest and most careful of childbearing women, to protect against stress. Events ranging from the large to the seemingly insignificant affect the unborn—everything from earthquakes to scary movies, from a serious illness to a grease fire in the kitchen, from abandonment by the father to nervousness over a medical visit. Unfortunately, when the mother reacts to something that is frightening in the moment, such as a horror movie, the fetus has no way of knowing that the fear is a momentary state (certainly not that it was merely thrilling entertainment). Sometimes the results can be fatal. When pregnant women have been shot at or extremely frightened, even when they sustained no injury at all, the children they were carrying died.[[17]](#endnote-17)

Less dramatic chronic distresses can also be disastrous as the mother’s emotional states can determine the child’s destiny. Studies have long indicated that the mother’s habitual emotions are imparted to their babies. Depressed mothers have depressed babies, and anxious mothers, fearful ones.[[18]](#endnote-18) Even when mothers do not terminate a pregnancy, the effects of being unwanted can be as devastating as an attempted abortion. The mother’s resentment, fear or shame over an unwanted pregnancy appear to flow right into the baby when unwanted children are carried to term.[[19]](#endnote-19)

A 35-year study conducted in three countries compared unwanted children who had been delivered only after requests for legal abortions had been refused by medical authorities (some more than once) compared to children born to parents who wanted them.[[20]](#endnote-20) Problems for the unwanted children persisted throughout their lives. More of them died during infancy, and more were born with handicaps of all types and severity. They got sick more frequently, too. As they grew up, they were more likely to need psychiatric attention, to be delinquent from school, to be rejected by schoolmates, and to get into trouble. More were involved in criminal activity, including becoming repeat offenders remanded to custodial care. They consumed more caffeine, nicotine and alcohol than the control group. The trail of sorrow continued into adulthood, as they had greater difficulty establishing satisfactory romantic lives and bonding with their own children when they had them. On every dimension, their lives were more miserable than those who were born wanted.

But whether the womb environment is heaven or hell, the fetus is not a robot programmed to act out the mother’s condition inexorably. Although the unborn can’t escape a symbiotic existence with the mother, it does begin to develop an independent and autonomous psychological life. This is the beginning of the self, which truly can’t blossom without the periodic traumas that permit it to separate from embeddedness in the mother.

Over the course of even the best pregnancy, the fetus is frequently jolted out of a fairly blank, blissful type of receptivity into a more interactive mode every time the mother responds to a stressful event.[[21]](#endnote-21) By the sixth or seventh month, the fetus can differentiate one hormonal change from another, discriminating between the mother’s fear and anger, for instance. At some point, the reactions the fetus generates become *responsive* to the mother’s feelings, not merely a mirroring of them. This marks the emergence of a separate self.

One way self-differentiation shows up is through characteristics that might be thought of as personality differences. In the groundbreaking study of twins mentioned earlier, it was clearly seen that the twins’ personal characteristics prior to birth continued after they were born.[[22]](#endnote-22) What’s most significant is that the individual members of some pairs showed entirely different personalities—even when they were subject to exactly the same blood chemistry of the mother. One twin might be peaceful and calm during the sonogram observations, rocking rhythmically and playing with his tongue and the cord while the other twin appears tense and anxious, hardly moving, huddling in a corner of the womb, covering his face with his hands and arms.

Psychotherapists and psychiatrists who work at the prenatal level believe that the sense of self blossoms along with defense structures that protect its fragile emergence.[[23]](#endnote-23) At first, the fetus absorbs the mother’s feelings with little ability to distinguish between her emotions and its own. The fetus identifies with her negative emotion, and then gradually forms a defense against it. For instance, a mother who feels abandoned by the father, unable to cope with motherhood, and resentful of the pregnancy is sending biochemical messages to the fetus almost continually. The fetus may gradually form a defense against those, such as not trusting that the mother will be supportive or caring (“I can’t count on you, so I’ll have to take care of myself”). Or the fetus may reject her (“You’re too painful; get me out of here and away from you”). Other common defenses are deciding that the mother is helpless and incompetent, so the fetus begins to assume responsibility for everything, perhaps becoming a rescuer (“I’ll take care of you; I’ll be good”) or withdrawing any of its own needs (“I won’t add to your problems; I’ll be quiet and not need anything for myself”).

It actually seems as if the self forms in reaction to something painful, whether that’s the mother’s emotions, attempts to abort the child, or the act of being born. As long as the blissful embeddedness in the mother is maintained, there appears to be no impetus to separate as an individual. This means that the sense of self arises along with the need for survival.

The emergence of the self and the need to defend it was dramatized in a 1960s study of pregnant women who were habitual smokers. The mothers were denied cigarettes for a couple of days, which, of course, was stressful and unpleasant as they (and their unborn) began to suffer nicotine withdrawal.[[24]](#endnote-24) When they were given the first cigarette after being deprived, the women were anticipating smoking again with relief and pleasure. Yet their unborn babies had the opposite reaction. Fetal monitors immediately picked up stress reactions. This could not be a reaction to nicotine in the blood because they began *before the mothers had even had time to light up*. Neither the mother’s nicotine levels nor her emotions were dictating fetal response. How did the unborn know what was happening? Medical models, even those of body awareness, can’t account for this reaction. The answer may lie in the myths of the guardian spirit.

**The Myth of the Guardian Spirit**

New research supports the ancient wisdom that along with a body-self, we also possess a source of consciousness that is independent of our bodies, which may be thought of as a part of ourselves—our soul, higher self, witnessing consciousness—or a more distinct entity closely related to us—a guardian spirit, spirit guide, or spirit twin. Prior to birth, we have access to a source of awareness unconstrained by the limitations of our bodies. It seems to be just as much “ours” as the consciousness that exists within our bodies. They coexist and intermingle, forming one single sense of self—but one with extraordinary capabilities beyond anything the medical myth can explain.

Three cases are briefly presented here, all of them independently verified, to show the astonishing complexity of the evidence for this type of consciousness. It comes from recollections that are impossible to explain if the brain—or the body—is the only source of awareness.

A 13-year-old girl in a light hypnotic trance recalled this event from the 18th-20th weeks of gestation: [[25]](#endnote-25)

Mother was sitting on a couch. She’s knitting something. Daddy comes in and is asking why she’s knitting something for a *girl*. Mother says, “It’s a girl. I know it’s a girl. *It has to be a girl*.”

She has on a green plaid dress. I can’t see any other color. I think it is dark.

The girl’s mother confirmed the information, which clearly came as a surprise to her, saying: “I had a green and black plaid dress on, and I can remember when that was. I had just begun feeling Debbie kicking. It was in April. I gave that dress away right after my pregnancy. I would have been about five months along.”

Now clearly this example contains many elements that can’t be explained if consciousness resides in the brain (no EEGs yet) or the body (fetal eyes are inside the womb and fused shut; the auditory nerves are not complete). How did the girl know what her mother was doing with her hands or what her dress looked like? Information about the baby’s sex is hardly a flight-or-fight emotional message from the mother that would be transmitted through blood chemistry. How did the girl know the content of the conversation, especially the father’s words since he was not physically connected with her at all? It’s remotely possible that the child could have seen photos of her mother wearing this particular maternity dress before it was given away, but how could she have known what her parents were doing when they had their first conversation about the sex of the baby? All other possible explanations would have to involve paranormal powers of some type—being able to access the parents’ memories through psychic means, for instance—not through the transfer of information by physical systems as we know them. She couldn’t have picked up that information through her brain or body *at the time it occurred*, according to traditional scientific thinking. Either her awareness, or that of her parents, could somehow communicate free of the body’s constraints in regular space and time.

In a similar case, a woman in a light trance during a therapy session became extremely agitated, saying: “It’s before I’m born. My father is shouting [to mother], ‘I’m going to kill you.’” [[26]](#endnote-26) She began screaming and pulled her legs up to her chest as though trying to get away from something frightening. When she could talk again, she said, “I saw that button hook coming up at me. I knew my mother was trying to get me out….Nothing happened—only a little bleeding.” The therapist received a handwritten note from the mother a few days later, which said, in part: “The statement made about her father screaming ‘I’ll kill you’ is true and happened in the early stage of my pregnancy. [My daughter] had no way of knowing about these incidents [including] trying to abort with button hook.”

The therapist was able to verify that the incident occurred about 6 months into the pregnancy, a time when the normal position for the fetus is sitting up in the abdomen. Although a body memory could have prompted the patient to pull up her legs, how did she know the instrument was a button hook? How did she know her mother bled a little? How did she know what the father was saying, especially his exact words, which should have been incomprehensible to a preverbal fetal mind?

Last, a man reported that when his mother was pregnant with him, she had gone to her parents’ home because her father had died suddenly from a heart attack.[[27]](#endnote-27) (This revelation actually contradicted the man’s conscious belief that his grandfather had passed away long before he was born. He realized under hypnosis that the death actually preceded his mother’s labor by only about a week.) He went on to describe the weeping grandmother who was wearing a flowered dress as she sat on a sofa, and his mother’s gray-and-white striped maternity dress with a round collar trimmed with a pink bow. He reported that when his mother went into labor, she was extremely afraid that she, too, would die, like her father to whom she had been very attached. Her labor stopped, leaving him stuck in the birth canal, necessitating a forceps delivery. The mother independently confirmed every detail, although she was unable to recall what the grandmother was wearing.

Thus the ability to view events from a perspective outside the womb—one that may have no relationship to the body’s development—is possible. The ability to see clearly, understand language, have insight into even the unspoken thoughts and feelings of others is also possible.

The most astounding accounts, however, come from a time when the fetal body is not merely incapable of processing sensory information or thought—*but when it doesn’t exist yet at all.* Several researchers working independently have verified memories of the events surrounding an individual’s conception, before the father’s sperm united with the mother’s egg. In one of them, a woman saw her parents making love on a couch in Germany before they were married. [[28]](#endnote-28) Suddenly the mother’s mother and sister returned from shopping early, catching them in the act and embarrassing everyone: “Mother was beside herself. She knew she got pregnant. She was ashamed. She didn’t want to do it in the first place…She blamed me for her trouble….” In another, the person remembered, “Mother was not in the condition for me to come in. She was drunk…She didn’t want to be there with my dad. She was mad at Dad, forced to be there….it was just an accident….Funny, that I would know that it wasn’t right.”[[29]](#endnote-29)

This source of consciousness—which apparently isn’t even reliant on the individual’s first unique genetic material formed by the union of sperm and egg—seems to transcend all the normal limits of embodiment.

**The Two Voices**

What is the nature of this source of consciousness? If it can transcend the limits of the body, what relationship does it have with the body during incarnate life? There are several clues to be found by a close examination of the records.

The source of awareness that seems to transcend the body’s limitations speaks in a completely different voice from the one that seems to emanate from the fetal body. The verbatim records shows that there are usually two “voices” speaking: one located in the fetal body, reporting on what it is like to be inside the uterus, and one that seems to be outside the baby’s body—and outside the mother’s body as well, though still nearby. Who is talking at any given point is usually apparent. Hypnotized adults often report their confusion from this dual vantage point, even when they are still in trance, as these quotes from three individuals indicate:

At times I feel like I’m somewhere in the room witnessing what is going on, and at other times I am the child and seeing it from that point of view…I wonder how come I can see around behind him?….

It’s like flashing both. It’s like I am somebody else looking at what’s happening. Am I making this up? I don’t think I am, but I hesitate to say what I’m actually seeing….

I keep looking through the nursery window. It’s weird. I can’t be on both sides of the window? I’m looking at the baby; it’s me.[[30]](#endnote-30)

The in-body voice reflects concerns with the wellbeing of body and survival of the newly-forming self. This voice often expresses itself as panicky, depressed, guilty and/or defensive. It is the voice of the ego and body-self feeling threatened and doing what it can to survive. The other voice is quite different. It seems detached and calm, able to view the most distressing events with objectivity and insight, even compassion, as seen in this touching account:

The only thing I see is [my brother’s] face getting tight and scrunched up…like he is going to explode….[Mother] told him about me: “You are going to have a new brother or sister, and you’ll have somebody to play with and share things with him or her.” My brother gets all tight and upset. I can feel the pressure building up inside of him. He kicks things…. He’s ashamed to feel the way he does. He should want me, but he doesn’t, and he gets all tied up in himself.[[31]](#endnote-31)

In addition to reporting accurately what is seen and said, it is apparent that the out-of-body source of awareness can telepathically read the unspoken thoughts of others. The following example shows the differences between the two voices, one concerned with survival and bodily sensations, the other viewing the situation from outside the body and with greater objectivity. The text that clearly transcends the limitations of the body is italicized to show how the two mix in a single record.

I was hardly formed and my mom is using some kind of remedy to wash me away. It feels real hot…I know she is trying to get me out of there. *I’m just a little blob*. I don’t know how I know, but I know*. My aunt seems to be giving my mom directions. I can hear her voice and another woman n the background. She is not supposed to get pregnant. She doesn’t know me*….It didn’t work either. It had …[That’s crazy, the subject tells herself, you can’t smell anything when you are in the uterus!] a strong harsh smell, almost a disinfectant smell, like ammonia, strong, a vile strong smell. *I can see where I was too; I was way up there, just teeny.* I knew nobody really wanted me then…but I was determined. I was a fighter even then. *Poor mom would die if she knew I knew all this stuff!*[[32]](#endnote-32)

This transcendent awareness can look back at the fetal body’s size and location, see who was in the room, understand their words and actions, and feel compassion even when the fetal self is being threatened. Furthermore, in other reports, the transcendent source of consciousness can tap into the minds of others present, especially the father’s thoughts.

Since the vast majority of these transcripts come from therapists working with people in altered states (usually light trance from progressive relaxation or hypnosis), questions arise concerning the kind of material that comes up. In the first place, most people are talking about painful events that have had a negative impact on their lives. Not all prenatal experiences are painful, though the ones that bring people into therapy tend to be. The events most likely to be reported concern significant happenings associated with high emotion (positive or negative): the circumstances surrounding conception, the mother’s realization that she is pregnant, her announcing her pregnancy to significant others (especially the father), discussions about the desired sex of the child, attempted abortions, important events for the parents (such as the loss of a job, death of a family member, abandonment by the father), birth, and the neonate’s reception by the family.

One man knew as soon as he was with his mother “that I had nothing to worry about….She repeated my name several times proudly. When she held me or spoke to me, there was something different. I could tell she cared for me in a way the others didn’t. The others were concerned, but she was totally concerned. I was her only thought….” [[33]](#endnote-33) Another said, “My dad is holding me; that feels really good. He likes me….In my dad’s arms it’s almost as good as being inside [mother].”[[34]](#endnote-34)

Another question that comes up is whether the altered states used to access these old memories can produce some of the content. It’s true that certain techniques affect which voice or voices are heard. Psychedelics and controlled breathing methods seem to activate the fetal voice primarily, while trance states of various kinds produce both voices. Information generated in all kinds of states has been independently verified, however. (This is not to say fantasy material never comes up; sometimes it does, but it’s usually easy for experienced clinicians to spot.) Information can be accessed more easily in states that replicate the type of awareness that existed when the events occurred. Thus any conditions that simulate some aspect of prenatal life—spending time in a flotation tank, certain types of massage, and the like—can bring these memories to the surface.

They can also be resurrected in normal states, though normal-state recall is easier for children than for adults. Two artists who had been adopted drew accurate representations of their biological mothers’ homes, one an exterior view of the house, and the other a specific room. Neither of the biological mothers had had any prior contact with the children, who were removed from their care at birth.[[35]](#endnote-35) And very young children (typically less than five years of age) often startle their parents (who usually don’t believe them at first) with their accounts, which, given their language skills, are as charming as they are well-informed. A three-and-a-half-year-old boy described “what it was like in mommy’s tummy” as “like the light was turned down…like looking for fish. It was kind of hot in there.”[[36]](#endnote-36)

Such naïve accounts can also demonstrate both voices, showing a mature level of insight and compassion. One little girl remembered an event that had been kept secret even from her family. When she was born, the assistant midwife, Cathy, had been left alone with the baby just after the birth while the midwife assisted the mother to bathe. When the newborn began to cry, Cathy instinctively offered her own breast for the baby to suckle. By the time the mother returned, the baby was asleep. Cathy said nothing about the incident because she was having second thoughts about what she had done, feeling guilty about being the first to nurse the child. Almost four years later, as Cathy was babysitting a group of children that included this little girl, she asked whether any of them remembered being born. The little girl proceeded to give an accurate account of who was present and their roles during labor and delivery. Then, apparently sensitive to Cathy’s secret guilt, she “leaned up close and whispered in a confidential tone, ‘You held me and gave me titty when I cried and Mommy wasn’t there.’”[[37]](#endnote-37)

Children’s accounts are highly accurate. David Chamberlain separately hypnotized ten mother-and-child pairs to elicit information about their births, the following days at the hospital, and the first days at home.[[38]](#endnote-38) The children, who had no conscious recollection of their births, could describe the time of day, the locale, the persons present, the instruments used, their position at delivery, and all the post-partum procedures, including the room layout, details of discharge, and arrival at home. Significantly, the child’s recollections often contained information unknown to the mother (she was sometimes anesthetized and completely unaware of some proceedings). The reports dovetailed on all major points, and where differences occurred, *usually the child’s account was verified by doctors and nurses as the correct one*. Similar results have been obtained in mother-and-child studies for prenatal events.[[39]](#endnote-39)

**The Myth of Prior Existence**

Fetal awareness may somehow tap into at least some of the information possessed by the transcendent source—information the fetus could not access with its own senses or process with its own mental capabilities. But the information appears to be “translated down” into the survival mode of the fetus, as if something about the fetus filters out detachment and compassion and can only pick up the facts of the content that reinforce its need to defend itself. Thus, although the two voices seem to be part of the same self and share information, they have very different concerns which surface, depending on which voice seems louder.

The transcendent voice has some interesting things to say about its relationship to the fetal body and brain. Helen Wambach hypnotized over 750 people, almost 90% of them reporting having two separate, simultaneous sources of consciousness before birth.[[40]](#endnote-40) They didn’t identify with the growing fetus or its stream of consciousness, but with being a disembodied mind hovering in the vicinity of the mother, going “in and out” of the fetus, and possessing a telepathic knowledge of the mother’s mind. They knew that the fetus was “theirs”—but the majority didn’t become involved with “their fetus” until 6 months after conception. In fact, many were extremely reluctant to join “their consciousness” with the body-bound awareness of the fetus. Most of them didn’t really want to be embodied, which they regarded as a hard life, but that somehow they felt compelled to do so. Typical comments were:

No, it seemed as though I didn’t choose to be born, but was forced by others to be born. It seemed there was someone higher up or others insisting. I just didn’t want to be born at all.”[[41]](#endnote-41)

I kept coming and going from the fetus, like I was unsure. I was aware that my mother was quite upset and in deep pain. She didn’t want me. I was premature, and I get the impression that this was an effort on my part and my mother’s part because she didn’t want me, and I really didn’t want to be born.[[42]](#endnote-42)

Significantly, the majority resisted joining the fetus until the third trimester, a few even holding out until a few days after birth. This is the period when the brain “turns on” and stays on as electrochemical activity becomes constant and coherent across both hemispheres. It may well be that something about higher levels of brain activity draws the transcendent source “in” and also begins to upstage it. (How the two voices interact throughout life will be explored throughout this book, as their relationship changes over time.)

Much of the wisdom and detachment of the transcendent source of consciousness becomes obscured. First, the limits of the baby’s body make communication with adults virtually impossible. But this is matched by the inability—or unwillingness—of adults to credit infants with any intelligence at all. In one extraordinary account, some of these problems become evident, along with the preoccupation of having a new body with unexplored capacities.

Just after a normal birth, Deborah’s fingers and toes became very cold and began turning blue. The medical team fumbled her from one person to the next, juggling procedures and trying to stimulate her hands and feet. She was fascinated by her new bodily sensations, but her predominant emotion was frustration with the doctors and nurses who seemed not to understand her condition. She begins with her emergence from the birth canal:

Then all of a sudden there was this yellow room and these people. That’s when I was beginning to figure out what was going on. Not very happy about it. . . .

The breathing was just in bursts at first, every time I made a noise [cried]. Then I noticed every time I was doing it I was doing it in between the noises, so I was thinking about that, too. It kind of distracted me from being mad because I was concentrating on what was going on inside me. Listening to the way it sounded. Feeling the air go in and out. Making it go faster and slower--that was kind of a neat idea. I thought as long as I had to be in this place, I might as well have something like noise and air. Kind of gave me something to do. . . .

I felt I knew a lot--I really did. I thought I was pretty intelligent. I never thought about being a person, just a mind. I thought I was an intelligent mind. And so when the situation [of being born] was forced on me, I didn’t like it too much.

I saw all these people acting real crazy. That’s when I thought I really had a *more* intelligent mind, because I knew what the situation was with me, and they didn’t seem to.

They seemed to ignore me. They were doing things *to* me--to the *outside* of me. But they acted like that’s all there was. . . . [[43]](#endnote-43)

Newborns are frustrated by the way people treat them and their inability to communicate their thoughts, remarking typically: “They don’t think I’m a person. I *know* I am.”[[44]](#endnote-44) One woman described how the original intelligence she had brought into embodied life from the transcendent source of awareness gradually slipped away. [[45]](#endnote-45) She said that she had felt very wise when she was first born, though she resented embodiment, saying with evident distaste, “I have to put myself in that baby body.” She said that before, she “knew a lot,” but that by the time she was three she had become a conventional child, “that dumb little kid” everybody thought she was. Her comments ring very true, especially since most children forget all their early memories by the age of five.

What does this mean? Where does the physically transcendent source of consciousness reside before we have bodies? Is it a soul? Does it really “belong” to us as a part of our private, subjective consciousness, or are we tapping into the memories of others but thinking it is our own self? Is it proof of reincarnation? Do we really lose access to this source during life, and for how long? These are some of the questions we’ll explore as we go through other phases of human life.

**Creating and Celebrating the Perfectly Human Fetus**

Whether we were the desired babies of doting, carefree parents or the unwanted children of parents who were overwhelmed, our own nature coming into this life seems to have been both perfect and competent. We each possess that wise transcendent source of consciousness who saw all, understood all, and had compassion. We each possess that fetal source of consciousness that, no matter how tough things were, had the courage and the will to live—and was resourceful enough to find a way to do it, sometimes in the face of great hardship. That part of ourselves, however battered, determined to survive and grow. The self it created is who we are, and the defense strategies that allowed it to live served us well—and in many cases are still serving us well. This is who we are, this is how we survived. This self is the precious gift of our learning how to be in the world.

The following tips can be helpful to you as someone who may have come into the world under difficult circumstances that may be affecting you today. They can also be helpful to you as a concerned parent, either planning to optimize the gestation and birth of future children or in learning more about ways you can help the children you already have.

1. *For yourself, determine whether you may have been born under circumstances that might have affected you in a negative way*. Almost every phase of life has its difficulties, but if being in the world has always seemed problematic, if you have always thought you belonged “somewhere else,” or have always been angry, depressed or lonely for no particular reason (going back to childhood), you may be suffering from unresolved issues from the prenatal time in your life or the events surrounding your birth. Many people who suffer from a pervading sense of loss, loneliness, unworthiness, and depression that has been more or less life long suffered prenatal or perinatal trauma. Such preverbal and pre-egoic wounds can survive untouched by most forms of conventional talk-therapy.
2. *If possible, gather information about your gestation and birth*. If you suspect that your gestation or birth occurred under difficult circumstances, ask for as much information as possible from living family members. In particular, find out about any medical condition or intervention your mother may have had, such as near-miscarriages, the names of medications she may have been given, whether you were delivered with forceps or with anesthesia, whether there was a lost sibling (such as a stillborn twin), etc. If it is feasible, determine in a gentle, nonjudgmental (and perhaps even indirect way) whether you were wanted or whether one or the other of your parents was conflicted about having a child.
3. *Consider whether you might benefit from therapy designed to uncover prenatal and perinatal wounding.* Regardless of how terrible some of the stories that appeared above sound, the therapeutic reports came from people who have now been healed, some after only a few sessions. The process of remembering alone can be liberating. It usually has two parts: surfacing and acknowledging the body’s memories of what really went on, regardless of what conscious memory says and regardless of the family lore; and reclaiming the knowledge of the transcendent source who felt compassion for the struggling fetus as well as for the family members and medical staff who may have done harmful things out of ignorance and fear. Psychotherapists qualified to work with preverbal wounding typically employ methods that help clients return to, or access, a similar type of consciousness. Such methods may include mild altered states attained through movement, repeating certain phrases, deep relaxation, light hypnosis, dreams, drawing, and the like. To locate qualified resources in your area, see Appendix XX.
4. *For your own children, determine whether events in your life may have had an adverse effect.* If, after reading this chapter, you think that events in your life may have affected one of your children in a negative way, spend some time reflecting and making a list. Recall your feelings and circumstances of the conception, how your partner felt about having a child, whether the pregnancy was medically easy or problematic, whether significant life events impinged on the family’s emotions during the pregnancy (relocation, prosecution, divorce, death, accident, etc.), and whether the birth and arrival back home was pleasant and easy or difficult. If it is feasible and appropriate, you may be able to help by discussing your concerns with the child and making amends, provided your feelings are unambiguous. For instance, in an age-appropriate way, you might say to an older child, “You know, I was just reading this book about how children can sometimes be affected by what happened when they were still in the womb, and because I was transferred to a new city when your mom was pregnant with you and we were very worried about money, I wondered whether somehow you thought we might not have wanted you, even if you don’t remember thinking that consciously. It’s true we felt pretty scared about starting a family just then, but the closer it got for time for you to be born, the more excited we were. We spent hours dreaming about what you would be like. The day you were born was the happiest day of our lives.” A frank statement of original difficulties, if it can be followed by a wholehearted endorsement of the child, can go a long way to help children make sense of “crazy” or “irrational” feelings that they were not wanted and then relax into the present family dynamics. For more serious issues you are aware of, especially if your children have suffered from chronic medical problems, especially asthma, allergies, and learning disorders, or chronically depressed or irritable mood, your children (and you) may benefit from consulting specialists. A partial list of qualified specialists and referring organizations is in XX.
5. *Prepare for future pregnancies proactively.* You can help your children develop optimally even before birth. Seeking prenatal counseling prior to conception and following medical advice in avoiding elective procedures, medications, and upsets prior to and during pregnancy is just the beginning. It is important for you and your partner to maintain an emotionally open, loving, and welcoming spirit toward the child and to remember that the child can pick up on your thoughts, as well as your words and behavior. Avoid, so far as possible, engaging in risky behavior or situations that are likely to produce emotional upsets. Investigate the prenatal stimulation programs shown to enhance development in the unborn children, and determine whether they are for you, but don’t start them until the recommended time. For information, see XX.
6. *Forgive.* No pregnancy, no parents, no medical or midwifery team is perfect. There are no flawless pregnancies, no flawless births. Whether you find out that your own parents or medical practitioners badly mismanaged your arrival in the world, whether you think you may have damaged the children you have or may have, the only thing that is important now is that you forgive them, forgive yourself, and if appropriate, ask your child to forgive you. It is never—*never*!—too late to forgive.
7. *Remember, the transcendent source of awareness has already forgiven.* The source of consciousness that can escape the fetal body already knows the truth, knows what was in the parents’ hearts, the hearts of other family members. And this source was filled with compassion and understanding at the time for all the parties concerned. It has already forgiven. No matter how the ego-self looks, this self, which, as we will see, is always present, is always just fine, always resting in the ground of love and understanding. Everything, deep down, is really all right.

Integrating the wisdom of the transcendent source with the view of the body-self can release the burdens of a lifetime. Knowing can’t change the past, but it can help us let go of the hurt and move on. It’s not a cure-all, but it’s also not an exaggeration to say that prenatal and birth therapy are some of the most efficacious approaches to certain longstanding difficulties. People who have done this work have been able to let go of persistent physical pains, phobias, obsessions, chronic anxiety and depression, sexual dysfunction, and diseases like asthma and allergies that can sometimes be generated by prenatal events.

Knowing about this important period in our lives and the great capacities we had, whether we do any therapeutic work or not, can allow us to realize how perfect we are. We come into this life, to finish Wordsworth’s stanza opening this chapter, “trailing clouds of glory…from God” because “heaven lies about us in our infancy.” That transcendent source of consciousness with its wisdom, insight, capabilities, nonattachment, and compassion is ours. It is who we are. But it isn’t some “higher standard” our body-self needs to aspire to, because that body-self with its longing to survive is just as valuable. Without it, the transcendent source of awareness would not be here, now, in this life. Our destiny is to be both, and to embrace both—the self who lives fully in this world, as well as the self who can be compassionate and insightful no matter how hard life seems.

1. Gellrich, 1993. [↑](#endnote-ref-1)
2. Panneton, 1985; Hepper, 1988. In one case (reported in Chamberlain, 1992, 1994), a pregnant woman who watched the same news program every evening had a son born so prematurely he required hospitalization for three months. Not only was he separated from his mother but also from the sounds of the news program he’d grown accustomed to. When he came home, his parents were amazed to see how he became transfixed every night by the evening news. He wanted to watch it every night. This “bonding” occurred *before* 29 weeks gestation when he was born! [↑](#endnote-ref-2)
3. Hepper, 1992. [↑](#endnote-ref-3)
4. Peleg & Goldman, 1980. [↑](#endnote-ref-4)
5. Van de Carr & Lehrer, 1986; Van de Carr, Van de Carr, & Lehrer, 1988; Panthuraamphorn, Dookchitra, Sanmaneechai, 1998; Lafuenta, Grifol, Segarra, Soriano, Gorba & Montesinos, 1998; Manrique, Constasti, Alvarado, Zypman, Palma, Ierrobino, Ramirez & Carini, 1998. [↑](#endnote-ref-5)
6. See Appendix XX for ways to obtain information on recognized prenatal stimulation programs. [↑](#endnote-ref-6)
7. Baker, 1978; Birnhoz, Stephens & Faria, 1978; Ianiiruberto & Tajani, 1981. [↑](#endnote-ref-7)
8. E.g., Buchheimer, 1987; Rossi, 1990; Dossey, 1989; Pert, Ruff, Weber, & Merkenham, 1985. [↑](#endnote-ref-8)
9. Chamberlain, 1999c, p. 72. [↑](#endnote-ref-9)
10. Raikov, 1980, 1982. [↑](#endnote-ref-10)
11. Cheek, 1975, 1986. [↑](#endnote-ref-11)
12. Jacobson, 1988; Jacobson, Eklund, Hamberger, Linnarsson, Wedvall, & Valverius, 1987. [↑](#endnote-ref-12)
13. Feldmar, 1979. [↑](#endnote-ref-13)
14. Emerson, 1996. [↑](#endnote-ref-14)
15. Van Husen, 1988. [↑](#endnote-ref-15)
16. Piontelli, 1992. [↑](#endnote-ref-16)
17. Goodlin, 1979. [↑](#endnote-ref-17)
18. Eg., Zuckerman, Bauchner, Parker & Cabral, 1990; Feldman, 1981. [↑](#endnote-ref-18)
19. E.g., Bowlby, 1984; Bustan & Coker, 1994. [↑](#endnote-ref-19)
20. David, Dytruch, Matejceck & Schuller, 1988. See also Row & Drivas, 1993. [↑](#endnote-ref-20)
21. Verny & Kelly, 1982. [↑](#endnote-ref-21)
22. Piontelli, 1992. [↑](#endnote-ref-22)
23. E.g., Gabrial & Gabrial, 1992. [↑](#endnote-ref-23)
24. Leiberman, 1963. [↑](#endnote-ref-24)
25. Cheek, 1986, pp. 106-107. [↑](#endnote-ref-25)
26. Cheek, 1992, p. 130. [↑](#endnote-ref-26)
27. Cheek, 1992, pp. 132-33. [↑](#endnote-ref-27)
28. Chamberlain, 1990, p. 181. [↑](#endnote-ref-28)
29. Chamberlain, 1990, p 182. [↑](#endnote-ref-29)
30. Chamberlain, 1988a, pp. 187-188. [↑](#endnote-ref-30)
31. Unpublished manuscript courtesy of David Chamberlain. [↑](#endnote-ref-31)
32. Chamberlain, 1999b, p. 52. [↑](#endnote-ref-32)
33. Chamberlain, 1999c, p. 74. [↑](#endnote-ref-33)
34. Chamberlain, 1999c, p. 74. [↑](#endnote-ref-34)
35. Stiffler, LaV. H., 1993. [↑](#endnote-ref-35)
36. Rhodes, 1991, pp. 99-100. [↑](#endnote-ref-36)
37. Chamberlain, 1988a, p. 104. [↑](#endnote-ref-37)
38. Chamberlain, 1988b, p. 21. [↑](#endnote-ref-38)
39. Ham & Klimo, 2000. [↑](#endnote-ref-39)
40. Wambach, 1981. [↑](#endnote-ref-40)
41. Wambach, 1981, p. 56. [↑](#endnote-ref-41)
42. Wambach, 1981, p. 108. [↑](#endnote-ref-42)
43. Chamberlain, 1988a, pp. 155-157. [↑](#endnote-ref-43)
44. Chamberlain, 1999, p. 80. [↑](#endnote-ref-44)
45. Chamberlain, 1999, p. 89. [↑](#endnote-ref-45)