

How Pre- and Perinatal Psychology Can Transform the World

D. B. Chamberlain

San Diego, CA, USA

Abstract

In the 20th century, probably more people have had the experience of birth than in all previous centuries combined. The current rate is almost 10,000 births per hour. This involves about 180 million parents going through a unique life-changing experience.

Research and therapy focused on the prenatal and perinatal period confirms that pregnancy and birth are formative experiences for both babies and parents. Yet, in the century of maximum birthing, psychological principles and interactions have been radically altered. Indeed, large-scale experiments – unplanned and unmeasured – have upset human feelings and relationships, and may be playing a destructive role in modern society.

Meanwhile, our studies of babies have brought us to a new understanding of human consciousness, learning and memory. This paper draws on the latest scientific findings to show how specific changes in 1) parenthood, 2) birthing practices, and 3) how we view ourselves (psychology) could transform the world.

Zusammenfassung

Im 20. Jahrhundert haben wahrscheinlich mehr Menschen die Erfahrung des Geborenwerdens gemacht als in allen früheren Jahrhunderten zusammen. 10 000 Menschen werden jede Stunde geboren, was gleichzeitig für die Eltern eine einzigartige lebensverändernde Erfahrung bedeutet.

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Correspondence to: David B. Chamberlain, Ph.D., Psychologist, 909 Hayes Avenue, San Diego, CA 92103, USA
Invited paper

Die wissenschaftliche Erforschung der pränatalen und perinatalen Lebenszeit und therapeutische Erfahrungen belegen, daß Schwangerschaft und Geburt für Babys und Eltern elementare Erfahrungen sind, die eine formative Wirkung für die weitere Lebensentwicklung haben. In unseren Jahrhundert der rapiden Zunahme der Geburten haben sich die psychologischen und sozialen Lebensbedingungen radikal verändert. Die dramatischen Veränderungen unserer modernen Zeit haben die menschlichen Gefühle und Beziehungen durcheinandergebracht.

Neuerdings haben die Untersuchungen der Babys uns zu einem neuen Verständnis menschlicher Möglichkeiten des Bewußtseins, des Lernens und der Erinnerung gebracht. Diese Arbeit faßt die neuesten wissenschaftlichen Ergebnisse zusammen, um zu zeigen, wie Veränderungen in der Elternschaft, der Geburtspraxis und des eigenen Selbstverständnisses die Welt transformieren könnten.

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The population of the world is growing by almost 3 babies per second: that is 10,000 births each hour. Probably more babies have been *born* in this century than in all previous centuries: most of the people who ever lived are alive today.¹

This translates into about 180 million expectant parents who may be jubilant, ambivalent, angry, or hopeless over a nine month span, during which their babies feel welcome or rejected. The actual arrival ceremony may be peaceful and comfortable, or violent and terrifying, depending on cultural norms, the birth place, and birth attendants. We believe that both prenatal and perinatal experiences are *formative* for parents and babies: the "games" which are played in the first house – the womb – will automatically become the "games people play" in the larger house – the world. This explains the theme of the 6th International Congress on Pre- & Perinatal Psychology: Womb Ecology/World Ecology.

If babies in the womb had no psyche, there would be no basis for prenatal psychology and no reason to worry about prenatal suffering and learning. But they do. If newborns had no psyche, there would be no basis for perinatal psychology and no reason for concern about trauma at birth. But they do. Although we know better now, most of us were trained by teachers who thought all babies were mindless: therefore, prenatal or perinatal psychology did not exist.

Indeed there was no infant psychology, because infants did not yet have a psyche. The beginning point for child psychology was uncertain because the beginning of the self or psyche was uncertain. In retrospect, these ideas about babies were tragic miscalculations since babies are fully conscious before their births, during their births, and in each moment following.

Mistaken beliefs about babies led to painful birth practices – a matter of potential importance in an age when violence seems pervasive. Are 20th century citizens born into violence? For so many of us, violence fascinates: it becomes entertainment. We saturate ourselves and our children with it. Buying and playing with lethal weapons, we shoot each other in streets and bedrooms. As a group

we reproduce recklessly and birth unnaturally. The circle of violence includes not only us, but the environment around us. Some in prenatal psychology see a truth being revealed: As we live, we give birth; as we birth, we live.

I believe it is possible to break the cycle of violence and save a suffering planet. To do so we must break the cycle of “domestic” violence which may be the root of *all* violence. For your consideration, here are three ways I believe pre- and perinatal psychology can reshape the world.

I. By Changing Parenthood

If parents knew what we know in prenatal psychology, it would surely change parenthood; if parenthood changed, the world would change. What is parenthood? Parenthood is far more than uniting sperm and ova: it means nourishing, protecting, guiding, and helping children. The failure of parenthood is the crack in the dike of civilization.

What if parents knew that this important assignment starts *before conception* when they may be collecting teratogens in the workplace, at the liquor store, or at the drug store? ^{2,3,4} What if they knew prenatal cigarette exposure is associated with lower scores in cognition and receptive language skills at age five and six? ⁵ With such information, I think a lot of would-be parents would care enough to demand safe workplaces, to alter their lifestyles, and to ask about the effects of drugs on their unborn children.

Few parents know about the sensitivity of a baby early in gestation: they don't know a baby responds to the stroke of a hair or a point of light; that it will almost always move after a mother coughs or laughs; they don't know ultrasound shows active and spontaneous exercises beginning at just ten weeks gestational age (g.a.). ^{6,7}

A large literature in prenatal psychology shows a mother's prenatal stress correlates with birth complications, developmental setbacks, childhood abnormalities, and other deficits for the babies. ^{8,9} Lack of physical and emotional nurture during gestation commonly results in low birth weight babies who face multiple risks, including risk of neurologic abnormalities which show up when they enter school. ^{10,11} We are having an epidemic of these babies. ¹² In contrast, babies who are planned and obviously wanted have a distinct advantage. When tested at three months of age, children who were planned showed superior scores in cognitive capacity and attachment compared to the scores of unplanned children. ¹³

The general public is not yet aware of the evidence for intelligence before birth. ¹⁴ *LIFE* magazine's cover story (July 1993) on smart babies carried the big news of memory at 2.5 months after birth, signs of thinking at 5 months, and a “full range” of emotions at 8 months. ¹⁵ The authors completely overlooked the evidence for all these functions before birth! In reality, it would have been more accurate to report that memory, emotion, and thinking are innate human functions which can be found at any time, if we are clever enough.

Prenatal *learning* (which naturally includes thinking, memory and emotion) has been proven by the work of many authors including Busnell, ¹⁶ DeCasper, ¹⁷

Hepper,¹⁸ Sexon,¹⁹ Feijoo,²⁰ and Kisilevsky,²¹ who are among the more recent contributors.

Some experts are now saying that cognitive capacities have their *own* foundation, i.e., cognitive capacities are *not* built on sensorimotor experience, but are part of the human endowment.²² This supports the view I expressed in *Babies Remember Birth* (1988): newborn motor handicaps in no way reflect newborn mental abilities. The mind develops before the muscles.²³ After reviewing a full spectrum of research findings, anthropologist Charles Laughlin concluded, "there exists no stage of development, prenatal or perinatal, in which the cognized environment of the child is in chaos."²⁴

Because babies are learning all kinds of things in utero – both helpful and harmful – parents need to be warned of the situation. Thanks to researchers in pre- and perinatal psychology, today's parents have a variety of resources to help them relate positively to their babies in the womb. The honor roll includes Schwartz,²⁵ Van de Carr,²⁶ and Manrique.³⁰ (Because I have summarized their findings elsewhere, I will not repeat them here.)³¹ We must be sure the world hears this message: *the womb is a school, and all babies attend*. It is a fact of life. The practical questions to ask are "How bad or good is the school?" and, perhaps more important, "Do you learn to love the teacher?"

I think it would profoundly change parents' attitudes toward unborn children if they knew Alessandra Piontelli has observed twins in the womb via ultrasound and found them socializing!³² At only 20 weeks g.a. Luca and Alice, who had adjoining compartments in the womb, were obviously interested, affectionate, sensitive, and responsive to each other. They periodically caressed and played with each other at the dividing membrane. No one would have predicted these social interactions at 20 weeks.

It is in the womb that babies start learning their mother's "tongue" and begin falling in love (or out of love) with her voice.^{33,34} They begin listening and responding in the 16th week, long before the ear is formed at 24 weeks, using the vestibular system and the *skin* (which functions as an external nervous system absorbing sound and vibration).^{35,36} Never really isolated, a baby lives in the sound waves of the mother's body and in the tidal flow of her emotions, sparked by thoughts and experiences.

Mothers and fathers should be told while an infant's brain is under construction, psychosocial stresses can cause androgen deficiencies in males and androgen excesses in females which help to determine the sexual orientation of that child.³⁷

Consider the effects of a birth mother on her adopted child. Recent headlines warn that adopted teens are about four times as likely as non-adoptees to have very serious emotional and social problems.³⁸ Early results from the largest U.S. adoption study ever done (775 families), reveal that teens adopted as infants are more likely to often feel sad and anxious, to damage property, to violently assault people, and to use illegal drugs. The birth mother's use of alcohol strongly predicts her child's use of alcohol and marijuana and his or her sexual behavior: the birth mother's depression rating also predicts her teen's depression score.

In contrast, the adoptive mother's behaviors have virtually zero correlation with the teen behaviors of her adopted child.

I repeat, parenting – which begins with prenatal life – is a thoroughly social process and plays the dominant role in each child's development. A change in the birth parents' attitudes and practices can change a child's life.

II. By Changing Birth

If all parents, midwives, nurses, and obstetricians understood that babies are fully aware and intelligent both before and during their births, it could transform the way babies are welcomed into the world. Is birth this important? Yes, truly, though most people don't know yet.

Psychotherapists are constantly reminded by suffering patients that birth puts its stamp upon each of us: patterns are created, words imprinted, and emotions run deep. During this critical transition from womb to world, every move can shape the future. Little things take on massive importance.

For example, babies born to mothers free of anesthetics will *climb* up their mothers' abdomens to find the breast and begin nursing.³⁹ (Perhaps you have seen the video of Swedish babies doing this?) Frans Veldman, father of haptonomy, refers to this behavior as "effectiveness", a feeling that can last a lifetime. He sees this "decisive contact" at birth providing a foundation for personal identity.⁴⁰ In contrast, newborns affected by anesthesia act weak and lost, cannot find the breast, need help, and are not interested in nursing. This is a poor start in life.

Obstetrical anesthetics have other unintended but measurable effects on how babies behave, move, and connect with their mothers immediately after the birth.⁴¹ There are also serious long-term problems. Large scale statistical studies reveal ominous correlations between the type and amount of anesthetics given the mothers and later risk of drug addiction.⁴² You have to wonder: Are so many of us fascinated by drugs because we were introduced to them at birth?

Ironically, in the age of medical birth, babies have been exposed to new kinds of pain: *routine, medically-induced pains*. For those born before term, this pain begins in the neonatal intensive care unit. Here, pain is a way of life in a surrealistic world of invasive life-saving technology. In the design of these facilities and procedures, no one considered infant psychology: NICU designers thought babies incapable of pain, emotion, or memory. Many die before graduating from this medical experience, while others survive, disabled: a large percentage show long-term emotional distress.⁴³ I think we cannot yet count the full cost of bringing babies into the world through this painful portal.

At delivery, routine pain usually includes the pain of amplified contractions from induced labor, deliberate piercing of the amniotic sac designed to protect the head during labor, piercing of the baby's scalp in utero with monitor electrodes, increased use of mid- or low-forceps extraction following use of epidural anesthesia, a cold room, bright lights, an injection of Vitamin K, blurring eye medication, deep heel-lancing for blood samples, being straightened out for measurements, perhaps even slapped to provoke the cry, necessary for a com-

plete Apgar Score. All of these routine pains are dismissed as unimportant and all occur in the first hours or days of life outside the womb – most never encountered before this century.

Worse pain awaits the majority of boys born in America today: 60 % will have to endure the painful clamping and removal of the skin that protects the head of the penis! Can you think of a more sensitive place? Until recently, painkillers were thought unnecessary for this surgery because babies would not comprehend what was happening to them, or remember it with their undeveloped brains. In the 1970's, 90 % of American males were subjected to this pain in the opening minutes or hours of life, making them guinea pigs in a large scale unrecognized experiment in violence. Still 3,300 baby boys in the United States are having this experience today and every day. *Pain is serious*. How can we think there will be no consequences for this primal sexual violation? Generations have been affected. Could it be a hidden contribution to violence in men?

From a psychological point of view, the separation of newborn babies from their mothers – a hallmark of hospital birth – is another calamity. Research shows that togetherness helps and separations hurts.^{44,45,46} If a rhesus monkey baby is taken away from its mother for only *four hours* immediately after birth, it will never be the same again. For the rest of its life it will show typical anxiety symptoms under stress, all because of this untimely separation.⁴⁷ Similarly, human infants who have experienced separation trauma are neurobiologically altered. The change in these babies turns out to be long-lasting, rather than temporary.⁴⁸

We have come through a period of radical change in birthing practices. Let's look at what has happened to mothers. As birth shifted from home to hospital, from women helpers to men helpers, and from natural processes to technological management, the psychological dynamics and meanings of birth have changed.⁴⁹ In hospital birth, women often are deprived of control, lose confidence, and are distracted from intuitive birthing. Too often they feel disempowered, disillusioned, and depressed from the unique experience that in previous eras led to feelings of achievement, expansiveness, and triumph. When one in four births ends in surgery, it is impossible to escape the thought that women can no longer give birth. The psychological cost to women must surely be profound.⁵⁰

It was in this century that men were able to talk women out of breastfeeding and into bottle feeding babies with cow's milk "formula" instead.⁵¹ This was another large-scale unrecognized social experiment which not only put the world's babies in jeopardy but radically affected the relationship between mothers and babies.⁵² A sharp decline began in the 1940's in the United States and continued for three decades until only about 30 % of mothers were breastfeeding.⁵³ Knowledge of breastfeeding was almost lost. The women of La Leche League played a key role in bringing it back but it has taken a half century to return to the idea of breastfeeding as normal, healthy for mother and baby, and conducive to bonding. How can we ever calculate the consequences of the loss of breastfeeding to the babies who were born in the last half century?⁵⁴

Meanwhile, in the last 15 years, China, the largest country on earth, has slipped from 100 % breastfeeding to 56 %. (Nine out of ten hospitals in China accept free supplies of formula from formula companies.) This huge decline in

breastfeeding is taking place in the country which accounts for nearly one out of every five babies born in the world today. Must history repeat itself?

And, speaking of history, it was almost 20 years ago that French obstetrician Frederick Leboyer called for *Birth Without Violence*.⁵⁵ Were you there? Most obstetricians considered the call unnecessary. Birth is still violent, and so are we.

III. By Changing Psychology

A third way that pre- and perinatal psychology can transform the world is by changing psychology itself. If all psychologists understood pre- and perinatal consciousness, it would change our view of human nature, mind, and memory: this would, in turn, change the way we treat everyone, including babies.

Babies are teaching us who we are. Discovering them draws us into a new understanding of ourselves. The findings about them are so surprising, so unpredictable, so far beyond any previous norms, we are forced to create a whole new paradigm to do them justice.⁵⁶ The new paradigm is about us as well because babies *are* us.

First of all, babies have taught us that they are conscious, awake, and aware, regardless of their ages. They drink in experience, have an inexhaustible curiosity, and are marked by the quality of interaction they have with their mothers and fathers before birth. We once thought this time in the womb did not count. But because babies are always conscious (as we are), *all time counts*. Because all persons are conscious, education begins in the womb. Prenatal education is truly our “primary education”. (Perhaps we should call early childhood “secondary education” and school “continuing education”.) In this primary school, are we teaching noise and confusion, or harmony and love? If we are not careful, the primary curriculum could be pain, fear, and distrust. First lessons in dysthymia and rage are learned by open minds in utero.

Babies make full use of universal “languages” which we all possess as human beings, including the language of movement, facial expression, sound, cries, smiles, emotion, and dreams – none of which requires words. These languages cross all international boundaries and can be understood by anyone anywhere. Another essential but generally unrecognized “language” is *thinking*. This too is done without words. Although we have never given babies (or ourselves) credit for thinking as a language, babies seem to possess it as we do, and are ready to think about their personal experiences at any time.^{23,57} Babies are capable of logic and are always building hypotheses about their experiences.⁵⁸

Babies demonstrate altered states of consciousness, including telepathy, out-of-body experience, and near-death perceptions – things we are only recently acknowledging about ourselves.^{23,59} In studying babies, some of us are pulled forward by reverse logic: if *they* can do it, *we* can do it.

Finally, babies have helped to bring us to the brink of a new understanding of memory, memory that overflows all the dams, levees, banks, and boundaries that psychology had previously set for it (like the great floods of 1993). In the new understanding, memory is not just conscious recall, it is implicit, unconscious, and,

above all, behavioral.^{60,61,62} In her work with traumatized children including infants, psychiatrist Lenore Terr has found that behavioral memory is accurate and can last a life-time.⁶³

We *act out* our memories even when we can't "remember" them. Traumatic memories we can't verbalize are the tyrannical puppeteers of compulsive behavior. Learning in the womb and at birth typically involves unconscious, behavioral memory. We have been kidding ourselves that painful experiences do not register in memory, that rejection doesn't register, that neglect, drugs, anesthetics, shock, separation, or adoption *doesn't register*. It is time to reject this superficial concept of memory which has led us to ignore harmful conditions and to engage in deliberate violence to babies "for their own good".

What we understand about ourselves and how we view human nature is of tremendous importance. Changes here can turn people around and set the world in a new direction.

In Conclusion

There is a growing appreciation in our capitol city and throughout the United States, expressed in public polls, that help for troubled children and adults must come earlier and earlier in time if we are to avoid the catastrophic cost of illness, disorder, and violence in society. In our view, "early" means early-early, really early, like at the *beginning* when the foundations of health, love, and relationships are constructed. I repeat, if parenthood, birth, and our view of ourselves (psychology) were transformed, society would also be transformed, and the planet itself – Mother Earth – would be safe and secure.

The transformation we seek is not from the top down but from the bottom up: *primal* change, changed foundations. We are discovering in modern times how difficult it is to change after the fact: change through government intervention, military intervention, police intervention, medical intervention, educational remediation, social rehabilitation, and psychotherapy for primal trauma – all are enormously expensive. A microgram of prevention could be worth a ton of cure.

To get it right from the beginning means working to transform parents. How far can civilization progress with missing fathers, no-care mothers, and throw-away babies? Children cannot be transformed without first transforming parents into aware, sensitive, loving persons. And probably parents cannot be transformed without education about prenatal life and without support and love for *them*. This represents a new realism that society has its origins in parents and babies, and a new realism that nurturance is the core of parenting – the fuel of love that makes things work. Look at the world around you. Can human development go forward without nurturance to mind and spirit?

Let me close with the sentiments expressed in a personal letter I received from a colleague who had just read my paper, "Intelligence of Babies Before Birth" (1993) which I presented to the First World Congress on Prenatal Education, in Granada, Spain. Scott Walker wrote:

"How do you restrain yourself from running wildly in the streets and hospital corridors yelling for the abuse to stop? It drives me nuts to know that the ac-

ceptance by humanity at large, of what I feel we all intuitively know – babies are people and are aware – could within a generation or so, completely change the human condition.”

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