

## What Babies Are Teaching Us About Violence

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**Full Text:** INTRODUCTION We probe the connections between birth and violence at a time when society seems more and more violent, and more and more people seem genuinely concerned about it. Parents, legislators, criminologists, policemen, theologians, and psychologists are among the millions who are asking why people willfully injure and destroy each other. The result of all this activity is a massive and multiplying literature measured in the thousands of articles, books, conferences, and media productions. Nevertheless, the roots of violence in the prenatal/perinatal era are rarely explored. Our approach is to respect all sources of knowledge and all types of evidence including experimental, clinical, and personal experience. We like to engage parents, professionals, therapists, clients, and babies in the task of understanding early development. Babies are a source of knowledge about ourselves, a revelation of human nature, and babies can be "bellwethers."

Bellwether is a term used by shepherds to designate the lead sheep, the one who wears a bell. I ask you to think about how babies can lead us and what they can teach us. This reverses the usual idea that they should follow and learn from us. But think about it: would this violent world be better off if we tried to be more like them or if they tried to be more like us? We do well to watch babies closely. They are like a mirror we can hold up to discover ourselves as fully sentient, fully conscious beings. Babies can also serve (if we let them) as an "Early Warning System" for humankind. This is hazardous duty for babies, teaching us, warning us of danger. In this respect, they are like the beautiful, singing canaries that coal miners once took into the bowels of the earth to warn them of deadly gasses. Babies have several important things to teach us. 1. BABIES ARE TEACHING US THE ORIGINS OF VIOLENCE Until recently, the prevailing scientific habit has been to treat the earliest period of human development—from conception to birth—as an insensitive, unconscious, period of physical growth. Babies are teaching us quite the opposite: they are highly sensitive, reactive, and impressionable participants throughout gestation and birth. However, this is still the minority view in both medicine and psychology. The belief which has blocked understanding for a hundred years is the idea that no intelligence is possible and no learning or memory can occur until after birth, when the construction of the brain is more advanced. If this were true, it would follow that babies cannot care about anything, know anything, or learn anything—certainly nothing about love and violence. The false idea that prenatals cannot learn is still given credence in academic circles, permeates the fundamental assumptions of developmental psychology, obstetrics and neonatology, still casts a shadow over nursing, midwifery, and childbirth education, and still confuses each new generation of pregnant parents. The mistaken belief that babies are not sentient is the main reason why scholars rarely look for the roots of violence in the earliest human experiences. Potentially, babies have a lot to tell us and they are busy communicating with the psychologists, obstetricians, neonatologists, nurses, midwives, childbirth educators, and parents who will listen to them. Babies have been demonstrating awareness, vulnerability to influence, and intelligence (e.g., Verny & Kelly, 1986, Klaus & Klaus, 1985, Chamberlain, 1987, 1990, 1992, 1994). For two decades we have had proof that full-term newborns, prematurely born babies, and even babies in utero are capable of classical conditioning and habituation (e.g., Rovee-Collier & Lipsitt, 1982, Leader et al., 1982). More recently, with refinements in both learning theory and experimental methodology, newborns have demonstrated tactile, auditory, and olfactory learning, imitation learning, and verbal learning (e.g., Van de Carr, 1992, Busnel et al., 1992, Meltzoff & Moore, 1977, Ungerer et al., 1978, and Balogh & Porter, 1986). Recognition learning of musical passages, stories, voices, native language sounds and even children's rhymes have been shown at birth and during intra-uterine life (DeCasper & Fifer, 1980, Moon, Cooper, & Fifer, 1993). You may not be familiar

with the latest in the series of important experiments by Anthony DeCasper and colleagues, where French mothers repeated a child's rhyme three times a day from week 33 to 37 gestational age. After four weeks of daily rhymes, babies recognized the rhyme they had heard but showed no recognition of a different rhyme (DeCasper et al., 1994). Since the evidence for learning in utero and at birth is now overwhelming, we can assert that babies are capable of learning violence both before and during birth.

## 2. BABIES ARE TEACHING US THEY ARE NO STRANGERS TO VIOLENCE IN THE WOMB

Let us pause a moment to clarify definitions of violence and trauma. The dictionary says simply that trauma is a body injury produced by violence. In the psychiatric domain, trauma is a shocking experience which has a lasting effect on mental life. Babies are exquisitely sensitive to their surroundings in the womb. Between 10 and 15 weeks, their mothers' cough or laugh will get most fetuses moving within seconds (Tajani and Ianniruberto, 1990). Babies do not live in a fortress but in a mother. If she is assaulted, babies will learn about violence; if she is generously loved, babies will learn about love. A fetus whose mother received an electric shock while she was ironing sat bolt upright and immobile in the womb for two days-long after the mother had recovered. Inez Correia (1994) has measured the effect on the fetus of a mother viewing brief portions of a violent movie. Fetuses were upset along with the mother. They share the world of emotion. You will perhaps recall that Sontag and Wallace back in 1934, using a primitive apparatus to measure heart and respiratory activity in the mother and fetus, discovered that when a pregnant patient was pursued by a psychotic husband, the baby was alarmed right along with the mother. Recently, a news story in California brought to public attention the background of Robert Harris, who was executed in the gas chamber by the State of California. Harris was born three months early after his mother was kicked brutally in the abdomen by her angry husband and began hemorrhaging. This was only the first of many violent experiences this murderer-in-the-making suffered at the hands of his mother and father, a violence he later turned on innocent animals and people. At age 25, he shot two teenagers point blank, laughed at them after he pulled the trigger, and calmly ate the hamburgers they had just bought for lunch. We could not find a more dramatic example of a life that began and ended in violence. Now that amniocentesis is common, babies in the womb frequently confront a needle entering their private territory. Studies show they react fearfully, defensively, and sometimes aggressively (Ianniruberto and Tajani, 1981). This was brought to my attention again when an acquaintance told us of her experience during amniocentesis. Her husband, the doctor, and the ultrasound technician all saw little Claire bat the side of the needle! The technician said, "Take it out!" When the doctor reinserted the needle, the fetus again attacked it, forcing the doctor to remove the needle. The husband and doctor were in a nervous sweat. The doctor said he had never before seen a baby bat a needle. The parents had an instant lesson in prenatal psychology: they had no idea that a baby this age could sense the intrusion of a needle (and with eyelids fused), have such strong feelings and take such effective action. Ultrasound is revealing the hidden life of twins in utero. These pictures demolish the old theory that social relationships begin after birth. By 20 weeks, twins manifest a range of behaviors from affectionate to aggressive. Several observers have reported twins hitting each other. At 24 weeks g.a., monoamniotic twins were filmed having a boxing match with repeated rounds of a few minutes each. Rest periods separated rounds when one would strike with his hand and the other would strike back. (Ianniruberto & Tajani, 1981). They also filmed twins who were in different amniotic sacs. These brothers hit each other by pushing the dividing membrane. Obviously, we must enlarge our understanding of the roots of violence. Much of the violence which takes place in utero is the silent, invisible type: the injuries cannot be discovered until much later. Babies are trying to alert us to this damage but we are slow in learning. Included in this category are (1) psychic damages conveyed through attitude, and (2) brain damage inflicted through neglect. Bustan and Coker (1994) have uncovered the lethal consequences of rejection. In a cohort of 8,000 pregnant women, divided into those who wanted and those who did not want the pregnancy, the unwanted were 2.4 times more likely to die within the first month of life. In a crosscultural study of planned and unplanned babies in the U. S. and Greece, the planned (and welcomed) babies were already showing higher levels of cognitive processing and greater

attachment to their mothers at three months of age than the unplanned babies (Row & Drivas, 1993). This is especially significant considering that roughly half of the pregnancies in the U.S. are unplanned. Recent studies of violent criminals have revealed they often have poorly functioning brains. These poorly-built brains were constructed under adverse conditions during pregnancy. Research psychologist Adrian Raine finds enough evidence to justify labeling criminal behavior a clinical disorder resulting from structural and metabolic problems in the prefrontal area, as well as from other brain injuries and dysfunctions (Raine, 1993; Raine et al., 1994). Psychiatrist Dorothy Lewis has studied juveniles on death row and found a pattern of neurological impairment, paranoid misperception, hypervigilance, and low IQ's among these children (Lewis et al., 1988). Doctors Raine and Lewis fully appreciate that a combination of factors ultimately determines violent criminal behavior, but we must take note that brain-based origins of violence begin in the prenatal period. Having a suboptimal brain means that life is more difficult, frustration is never ending, and self-control is marginal. This can lead to misery, crime, and even death—all from prenatal causes. Recent news from Children's Hospital, Boston adds to our understanding of SIDS. Using positron emission tomography brain scanning, researchers discovered that SIDS babies have a deficit in the "CO2 detection system." A fully functioning brain wakes a baby when the CO2 gets too high. We are looking at another violent consequence of impaired brain growth in utero. A likely cause of abnormal brain growth is the ingestion of drugs and chemicals, legitimate or illegitimate. These substances can cause silent, invisible damage. The danger of exposure to alcohol in utero is well known. The list of destructive effects now includes evidence for slowed cognitive activity in infancy (S. Jacobson et al., 1993). Prenatal exposure to the invisible environmental toxin PCB also compromises cognition: tests show less efficient visual discrimination and poorer short-term memory (J. Jacobson et al., 1992). Epidemiologists now think that breast cancer may originate in utero from excessive exposure to estrogen (Trichopoulos, 1990; Ekblom et al., 1992). Another impediment to normal growth may be the frequent use of ultrasound. In a randomized controlled trial involving 1400 women in Western Australia, women who had ultrasound five times during pregnancy gave birth to babies with lower birth weight than women who had ultrasound only once (Newnham et al., 1993). Low birth weight reflects suboptimal brain growth, which brings us back to our starting point: having a poorly constructed brain may lead to problems of cognition and self-control which increases the likelihood of violence and crime. The safety of obstetrical anesthetics has been a concern over several decades. Psychologist Yvonne Brackbill began reviewing the literature in 1979 showing the effects of maternal anesthetics on infants (Brackbill, 1979; Brackbill, McManus, & Woodward, 1985). A seven-year study of over 3,000 babies showed long-lasting effects on their behavior and muscular functions. Many children born to mothers given drugs were slow to start sitting, standing, and walking. By age seven, some of these children were lagging in language learning skills of perception, memory, and judgment. In Sweden, Bertil Jacobson and colleagues studied the birth experiences of adult addicts and found a connection between obstetric pain medication and eventual amphetamine addiction (Jacobson et al., 1988). Opiate addiction was linked with the use of opiates, barbiturates, and nitrous oxide at birth (Jacobson et al., 1990). More recently, a study of epidural anesthesia via continuous infusion of bupivacaine and fentanyl was found to upset newborn visual habituation as well as immediate novelty preference (Brumitt, 1994). Mirmiran and Swaab (1992) of the Netherlands Institute for Brain Research point to damage to the developing brain from pharmaceuticals given to mothers in the third trimester. They report that 80% of pregnant and lactating women are given drugs and warn that the type of brain damage which comes of this is not "grossly evident," but causes permanent microscopic and biochemical alterations in the formation of neurones, their migration, formation of neurites, synapses, transmitters, receptors, and behavioral states. They say what appears to be a structurally "normal" brain is functionally handicapped.

3. BABIES TELL US THAT EVEN "NORMAL" BIRTH IS VIOLENT

Babies communicate this with their strong voices, their anguished facial expressions, and by vigorous movements of arms and legs. Are they not famous for crying fiercely at birth? Both parents and professionals expect this, smile nervously, and call it "healthy." Birth cries are not yet taken seriously, although most of them are clearly a reaction to violence. Screaming babies tell us that something is

wrong. My own attention was drawn to birth trauma by clients remembering birth in hypnosis (Chamberlain, 1990). The great majority (but not all) were actively protesting inappropriate conditions or actions at the time of birth. With ringing clarity they identified what was wrong: the pressure of forceps on their heads, cold rooms, bright lights, needle injections, repeated heel jabs for blood, stinging or blurring eye medicine, being suspended by their feet, hasty cutting of the umbilical cord, separating them from their mother, and isolating them in nurseries. Their cries were cries of pain and protest. Although many birth professionals have changed their attitude about infant cries, the prevailing practice is to tolerate crying and to continue painful routines regardless of crying. There is no goal of preventing crying. As might be expected, the crying continues. A psychological approach would ask why a baby is crying, and, would work to eliminate the possible causes. French obstetrician Frederick Leboyer in *Birth Without Violence* (1975) led us in that direction by comparing anguished baby faces with blissful faces. When neonates cry intensely and are impossible to console, pediatricians often become resigned and counsel parents to accept colic as a difficult developmental phase. A psychological approach, such as that of William Emerson and Raymond Castellino, is to identify what past trauma the baby is expressing and work to resolve it. In this form of therapy, body language and cry language is respected as genuine and helpful communication. Psychologist Aletha Solter (1984, 1995) sees colicky crying as meaningful and potentially therapeutic and teaches parents how to facilitate this. One of the most violent routines associated with hospital birth in the 20th Century is the practice of male circumcision, a surgical alteration of the penis, in the past always performed without anesthetics, and at the present frequently performed without anesthetics. In my view, this physical and psychic trauma cannot possibly be justified for any of the "medical" reasons which have been proposed over the last hundred years. Proving that circumcision is, in fact, a trauma with serious consequences should not be that difficult. First of all, a boy is permanently deprived of a functional part of his sexual anatomy. Is this not a serious long-term consequence? In my experience with clients, circumcision has sometimes been the origin of deep distrust between mother and son, or has left the victim with an unconscious impression there is something wrong with his penis. Harder to prove, but a hypothesis we must consider in this violent age, is that this sexual trauma contributes to sexual violence. Note well: prior to the operation, the penis is swabbed-often by a nurse-with disinfectant, creating an erection; then the penis is cut! Marilyn Milos states the problem concisely: "Circumcision is where sex and violence meet for the first time." New research by doctors at the Hospital for Sick Children in Toronto has documented that circumcised boys have a more extreme response to routine injections of vaccine at 4 or 6 months of age than do boys who are intact (Taddio et al., 1995). The babies who were circumcised showed more signs of pain and cried longer than intact boys, suggesting a long-term effect. These pediatricians recommend anesthesia for circumcision. However, a survey of primary physicians in that area, who performed circumcisions, revealed that only half used any form of anesthesia. Twelve percent still believed babies do not feel pain, and 35% believed babies do not remember it (Wellington & Rieder, 1993). In the U.S., 60% of male newborns are still being circumcised, usually with no concern about their pain. Is this not a seedbed for violence in our society? Research based on over 4200 consecutive births in Copenhagen found that birth complications like use of forceps, breech delivery, cord prolapse, pre-eclampsia and long labor, when combined with maternal rejection and extended separations in the first year, predispose the victims toward violent crime (Raine, Brennan and Mednick, 1994). Although only 4.5% of the sample had both risk factors, this small group accounted for 18% of all the violent crimes perpetrated by these 4200 people. Earlier studies also found links between obstetric complications and behavior disorders in children (Pasamanick, 1956), perinatal trauma and juvenile delinquency (Lewis et al., 1979), and perinatal complications and criminality (Litt, 1971). More recently, Kandel and Mednick (1991) found a significant correlation between delivery complications (e.g., eclampsia, forceps, ruptured uterus and cord prolapse) and adolescent and adult violent offending. The association was particularly strong for a small group of violent recidivists. Taken together, this alarming evidence suggests that babies born in the era of hospital obstetrics from 1939 to present were born in violence, baptized by violence. Neither medicine nor psychology

understood the formative influence of early pain. 4. BABIES TELL US THE PREMATURE NURSERY IS A THEATRE OF VIOLENCE Babies arriving too early find themselves in a surreal environment of needles, lights, incubators, and monitors designed for physical life support, but not for emotional life support. When these special nurseries were designed in 1967, babies were not expected to have thoughts, feelings, or perception of pain. Virtually everything done to children in NICUs is painful: breathing tubes, suction tubes, feeding tubes going down the throat, monitor electrodes fastened to the skin, intravenous punctures, heel lancing, and endless interruptions and alarms. Over the last 25 years, the number of premature births has risen to over 10%. Obstetrician David Cheek calls it "the tragedy of premature birth" (Cheek, 1994). In this theatre of violence, babies learn many lessons. Edward Harrison, who entered the NICU at 29 weeks g.a., learned to fear the sound and sight of adhesive tape and bandages. At age 15, he was still carrying in his unconscious mind the experience of having large patches of skin accidentally ripped from his abdomen and chest when monitor pads and tape were removed. He was also phobic about doctors, medical procedures, and hospitals. He would become sick at the sight of the hospital, and could not go for necessary medical care without sedation. Edward was shunted for hydrocephalus, while paralyzed with curare. Although he could not move, cry, or react in any way, he could see, hear, and feel as large incisions were cut in his scalp, neck, and abdomen, as a hole was drilled in his skull, as a tube was inserted into the center of his brain, then pushed down under the skin of his neck, chest, and abdomen and implanted deep in his abdominal cavity. At fifteen, he still will not allow anyone to touch his head, his neck, or his abdomen. Edward's experience was not unique. Numerous painful surgeries were routinely done on premature babies without benefit of pain-killing anesthetic, including the most common surgery, PDA, thoracotomy for ligation of patent arteriosus. Necessary for 50% of infants born under 33 weeks g.a. or weighing less than 1500 g., this major operation involves cutting holes in both sides of the neck, another in the right side of the chest, an incision from the breastbone around to the backbone, prying the ribs apart, and tying off an extra artery near the heart. In addition, the left lung must be retracted, and a hole must be cut for a chest tube. All this took an hour and a half, during which time the baby was left completely conscious of pain, and flooded with terror. As impossible as it seems, this was standard practice in neonatal medicine from the discovery of ether in 1846 until about 1986. For 140 years, ether anesthesia was reserved for certain classes of children and adults, but not for babies (Pernick, 1985). What could the babies tell us about this experience? Being paralyzed, they could not use body language in the usual way. Doctors were convinced the mind was not working and the experience could mean nothing. In reaction to surgery without anesthesia, some babies went into a trance or fell unconscious during or after their ordeals. Doctors said they fell asleep and were fine. However, many babies died, not immediately, but from shock following surgery. Death was their message, like the message of the canaries brought into the mines. Since 1986, many doctors have changed their minds about infant surgery without anesthesia, and medical societies have generally made new commitments to give babies the same consideration in regard to pain control as they do other patients. If this new path is followed, the total number of pain-traumatized babies could diminish each year. Meanwhile, no one really knows what the consequences to society will be for inflicting so much pain on so many premature babies. Massive pain makes us desperate and irrational, willing to fight and take extreme risks. Pain feeds rage. NICU alumni are growing up: the very first graduates are now approaching age 30. Their ranks are constantly swelling as those from about 700 nurseries join them. If the percentage of premature babies holds around 10%, it means we are adding about 400,000 per year. We should carefully assess the long-term consequences of such a vast social experiment. Yet, I am not aware of any studies specifically focused on NICU trauma, violent behavior, and crime in this group. With increasing acceptance of newborn pain perception, the debate now shifts to whether the fetus can perceive pain. That they do is shown by a team of London neonatologists who found that during intrauterine needling, the fetus mounts a full plasma Cortisol and beta-endorphin stress response indicative of pain (Giannakoupoulos et al., 1994). Their study of 46 fetuses during intrauterine blood transfusions revealed an increase of 590% of 6-endorphin and 183% increase of Cortisol after ten minutes of the invasive fetal

surgery. Even the youngest premies showed a strong response. In special care nurseries, pain and suffering are being reduced by several promising trends: a new acceptance of the baby's intelligence and capacity (e.g., Thoman and Ingersoll, 1989); introduction of pleasurable tactile interactions (Field, 1990; Adamson-Macedo and Attree, 1994); a new treatment approach called "individualized developmental care" which involves intensive listening and involvement with individual babies (Als et al., 1994); and by new cribs and equipment designed to mimic the sound and movement of the uterine environment (Gatts, Winchester, and Fiske 1992). If neonatology continues to incorporate this kind of psychology, the current violence of the special care nursery may diminish and with it some portion of societal violence which we have hardly begun to measure. Whatever happens in future nurseries, we must understand that the experience of prematurity is formative in its impact. For example, Stiefel and colleagues (1987) found that preterm babies studied at 12 and 18 months of age show greater sensitivity to even low levels of stress and show less ability to modulate distress once aroused. They do not relate to toys in the same way as full-term (fully-built) babies do. Their way of reacting to life carries a greater potential for emotional imbalance and loss of control-because they were prematurely born.

**5. BABIES KNOW THE DESTRUCTIVE IMPACT OF REJECTION AND SEPARATION** Ever since the pace-setting work of pediatricians Klaus and Kennell on maternal-infant bonding in 1976, attention has been repeatedly drawn to the destructive effects of untimely separations. In animal studies, the profound effects of separation in the post-partum period have been documented by Harlow (1958) and by Prescott (1971; Prescott, 1995). Separation is both a physical and emotional experience for a baby and can begin anytime in the womb or after birth. Whenever it occurs, it is a stroke of violence. Few things can compare with the oneness between mother and baby during gestation. The connections are total and holistic, embracing mind, emotion, and sensation. In this intimate world, babies know when they are not wanted, and if rejection persists, the harm worsens. This was thoroughly documented by the landmark study that followed several cohorts of unwanted babies in Finland, Sweden, and the former Czechoslovakia over a period of thirty years (David et al., 1988). The mothers, repeatedly denied abortions, were forced to bear and raise children they did not want. As their children's lives unfolded (in comparison with matched control subjects) they proved to be at greater risk for social and psychiatric problems, and were more often delinquent. In the Prague cohort, unwanted children had almost three times the risk of showing up in the Criminal Register. This finding underscores the data of Raine, Brennan, and Mednick (1994) that rejection and post-partum separation paves the road to criminal violence. This evidence is also coherent with the thesis of Ken Magid (1987) that children with no conscience are those who never had a close relationship with anyone. He typically finds in the family histories of psychopathic killers that they never had an affectionate, supportive relationship with anyone at the beginning of their lives. They started life unattached and grew up unable to follow rules or form lasting relationships. Without guilt, empathy or trust, their actions are callous and cruel; they kill without caring. We say they are suffering from "antisocial personality disorder." Some clinical data indicate how early the vulnerability to rejection can be felt, though not necessarily on a conscious level. Psychologist Andrew Feldmar (1974) encountered four adolescents who were repeatedly attempting suicide at the same time each year. When he had put all the facts together, he learned from their mothers that their suicidal compulsion was occurring each year around the time their mothers had tried to abort them-something the adolescent children had never consciously known. The same fetal sensitivity shown by these self-destructive youth is put to positive use in programs of prenatal stimulation. In every program which has been empirically tested, the efforts of parents to communicate love and welcome to their babies in the womb has been crowned with success. A prominent benefit has been the creation of strong mutual parent-child relationships (Van de Carr and Lehrer, 1988; Manrique, 1993, 1994; Panthuraamphorn, 1993). In the prenatal/perinatal era, anger and violence are natural products of rejection and separation; security and peace are the natural products of communication and love.

**6. BABIES BORN SMILING TEACH US SOMETHING WE DO NOT UNDERSTAND** A client told me about his experience in the delivery room when his son was born. He and his wife had prepared well for this great event, and the birth was smooth. The baby made not one cry and

seemed perfectly content. To this father's surprise, however, the obstetrician proceeded to circumcise the baby, whereupon the baby let out screams of anguish! Not one cry from the birth, but a howling protest about circumcision. Early psychological research on birth left us with the impression that birth was always violent and painful for babies. Certainly, birth can be painful, but what about those contented babies? What are they telling us? Obstetrician Frederick Leboyer (1975) was one of the first to look seriously at newborn faces and recognize what they were saying. He got the message and started to rearrange obstetrical practices to suit the babies. This was a stroke of genius. Why hadn't anyone thought of this before? You are familiar with how he dimmed the lights, moved the baby more slowly and gently, created a hushed atmosphere, left the cord intact, put baby on the mother, and waited while the baby settled down. Then he provided bath water near womb temperature, and voila! Faces changed from tortured and irritated to something more composed and-occasionally-smiles! This was a major achievement, although no one could claim that every baby treated in this manner was born in bliss. Birth without violence became a new thoughtform. Unfortunately, Leboyer's good influence has declined, due in part to a randomized clinical trial in Canada which declared the "Leboyer approach had no advantage" over conventional delivery (Nelson, et al., 1980). I believe the obstetrical measures used in this study failed to appreciate the importance of psychological factors and their long-term implications for mothers and babies. Reacting to the faces in Leboyer's book, noted Swedish obstetrician John Lind was surprised to see so much anguish. Lind had done thousands of deliveries in Stockholm, but he decided to take a series of photos of newborn faces there. After collecting 130, he announced that instead of anxiety or pain, baby faces expressed great curiosity and often, great expectations (Lind, 1978). These are rare and important data, speaking volumes about the positive atmosphere for birthing in Sweden. The world record for happy newborns probably belongs to Thailand, where smiling is more a tradition than a surprise. In Thailand the obstetrician who holds the record for the greatest number of smiling babies is Chairat Panthuraamphorn. With inspiration from obstetrician and prenatal bonding pioneer Rene Van de Carr, Panthuraamphorn designed an experimental program of prenatal stimulation for parents in his hospital in Bangkok (Panthuraamphorn, 1993). From about 20 weeks gestational age, mothers were encouraged to take time each day for a bath, to sit in a rocking chair, relax, look at a beautiful picture and listen to classical Thai music. Panthuraamphorn recommended abdominal massage three times a week, along with breathing exercises, visualization of birth and bonding, and engaged experimental subjects in a multi-sensory program of speaking and singing to the child, playing a game with a bell, and other pleasant interactions. When the babies were measured after birth, the experimental group proved to be significantly more advanced in a variety of measures-including smiling and laughing. Nearly all of the experimental babies in Thailand smiled responsively during the first five days following birth, something not expected for about six more weeks. Half also smiled spontaneously during the first five days following birth. The control infants were not as joyful: two out of 12 smiled responsively in the first five days, and three smiled spontaneously in the same period. What are these babies teaching us? Water babies are coming in smiling, too. Statistics for them may be hard to assemble, but both stories and pictures document the fact that some water babies have emerged from the womb smiling, starting underwater! One photo shows a baby on her mother's tummy, hand on the nipple, and smiling ear to ear seconds after birth. These babies seem to know their mothers have had an ecstatic experience; they express "total peace," and wear a "Thank-you!" on their faces. In an age of violence, we do well to watch baby faces carefully and to believe what they are telling us. In the past, we have neither watched nor believed. The scientific response to baby faces and sounds has usually been to deny real emotion at birth-and most certainly before birth-so these expressions have not been of value. Baby faces have not determined the direction of obstetrical practice, in spite of Leboyer's efforts. We should see all pained, angry faces at birth in the context of the smiling faces. In the past, did we not mistakenly assume gruesome faces and screaming voices were normal? This myth befits a violent society. Smiling newborns have been trying to teach us a higher standard for birth: birth without violence as a foundation for life without violence. Can we make this a national goal, a "standard of practice" in obstetrics rewarded with financial bonuses, and a

basis for mother awards? It would make a difference, I believe, in our society. Almost three thousand years ago, the Hebrew prophet Isaiah poetically described his vision of a world of safety and peace, a world without harm and destruction, where "the wolf shall dwell with the lamb, and the leopard shall lie down with the kid; and the calf and the young lion and the fatling together; and a little child shall lead them" (Isaiah 11:6) Babies leading us? Can we let them? I sincerely hope we can. Sidebar Presidential Address, APPPAH Congress on "Birth & Violence." References

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