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THE ROLE OF OBSTETRICAL RITUALS IN THE RESOLUTION OF CULTURAL ANOMALY

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Abstract—To a technological society like that of the United States, the natural process of childbirth presents special conceptual dilemmas, as it calls into perpetual question any boundaries American culture tries to delineate between itself and nature. The author builds on previous works in which she has argued that the American core value system centers around science and technology, the institutions through which these are disseminated into society, and the patriarchal system through which these institutions are managed. A constant reminder that babies come from women and nature, not from technology and culture, childbirth confronts American society with practical, procedural dilemmas: How to create a sense of cultural control over birth, a natural process resistant to such control? How to make birth, a powerfully female phenomenon, reinforce, instead of undermine, the patriarchal system upon which American society is still based? How to turn the natural and individual birth process into a cultural rite of passage which successfully inculcates the dominant core value system into the initiates? In the absence of universal baptism, how to enculturate a non-cultural baby?

Some of the dilemmas discussed in this article are universal problems presented by the birth process to all human societies; others are specific to American culture. Each contains within it a fundamental paradox, an opposition which must be culturally reconciled lest the anomaly of its existence undermine the fragile technology-based conceptual system in terms of which American society organizes itself. After a brief discussion of the history of this technological paradigm, the author analyzes eight of the dilemmas presented by childbirth to American society, demonstrating how they have been neatly resolved by obstetrical rituals specifically designed to removed birth's conceptual threat to the technological model by making birth appear, through technological means, to confirm instead of challenge the basic tenets of that model. From this perspective, routinely used obstetrical procedures such as electronic fetal monitoring, episiotomies, the lithotomy position, and even the Cesarean section emerge as rational ritual responses to the conflicts between reality as American society has constructed it, and the physiological realities of birth.

Key words—ritual, childbirth, obstetrics, technology

> Ritual forms an essential part of the matrix that organizes people into the social structure, and provides the glue that holds the social and cognitive structures together.... Its principal function.... is to provide what we have termed the stage one state: the state that maximizes a single, univariate orientation to reality at any level of analysis—physiological, psychological, or social.
>
> John McManus
> *Ritual and Human Social Cognition*

INTRODUCTION: AMERICAN CORE VALUES AND THE RITUALIZATION OF CHILDBIRTH

Every woman giving birth in an American hospital is faced with a standardized set of technologically-oriented procedures which will shape her experience of childbirth and often will even determine the outcome of that experience. As American birth becomes increasingly technological, increasing numbers of women have raised their voices in protest of a system that they see not only as dehumanizing and disempowering to women, but also as illogical and nonsensical [1–6]. As evidence of the unnecessary and often harmful nature of obstetrical procedures is accumulated and published by the medical [7–9] and lay presses [10–17], more and more individuals involved with birth are asking how it is possible that a medical specialty that purports to be scientific can appear to be so irrational. These individuals cite such common obstetrical practices as the placement of the woman in the lithotomy position for birth,* the frequent performance of episiotomies,† and the Cesarean deliveries of nearly 25% of American babies‡ as examples of such irrationality.

Although as a woman I was led by much of this literature, as well as by interviews with over 100 mothers and many of their birth attendants [18], to question the 'scientific' legitimacy of obstetrical procedures, as an anthropologist I have learned that

*In the lithotomy position, the woman lies on her back on a narrow delivery table with her feet up in stirrups and her buttocks at the table's edge. Use of the lithotomy position tends to make pushing the baby out more difficult and injurious than necessary, as this position (1) focuses most of the woman's body weight squarely on her tailbone, forcing it forward and thereby narrowing the pelvic outlet, which both increases the length of labor and makes delivery more difficult [80, p. 8]; (2) "compresses major blood vessels, interfering with circulation and decreasing blood pressure, which in turn lowers oxygen supply to the fetus" [16, p. 13]; (3) "increases the need for episiotomy [and the likelihood of tears] because of disproportionate tension on the pelvic floor and stretching of the perineal tissue" [16, p. 13]; (4) because the baby's passage through the birth canal must work against gravity, "forceps extraction is more frequently required and physical injuries to the baby are more numerous" [16, p. 13].

†‡Footnotes overleaf (p. 176).

most cultural behaviors which at first appear to be irrational usually turn out, upon closer investigation, to make excellent sense and to play important and meaningful roles within the context of the overall cultural system. If so-called 'primitive' customs like initiatory scarification or drinking the ashes of dead relatives are perfectly logical extensions of cultural assumptions about reality, then wouldn't there be something equally as sensible about the cultural treatment of birth in the American hospital? What cultural services might obstetricians be performing when they bring forth a new social member through a maze of wires and electronic bleeps?

In this article, I want to examine the American obstetrical treatment of birth from the perspective of American culture as a conceptual system. In earlier works [19–22], I have addressed questions of the significance for the individual of the 'standard American hospital birth', looking at birth as a rite of passage into motherhood in American society; this perspective enabled me to see that many obstetrical procedures which pass for science are in fact rituals designed to convey the core values of American society to birthing women. These core values, I have argued, center around science and technology, the institutions through which these are disseminated into society, and the patriarchal system through which they are managed. From this perspective, routinely used obstetrical procedures such as electronic fetal monitoring, episiotomies, the lithotomy position, and even the Cesarean section, emerge as perfectly sensible ritual and symbolic techniques for socializing women into this technological core value system. These obstetrical procedures are in fact rational ritual responses to our technological society's extreme fear of the natural processes on which it still depends for its continued existence.

CULTURES, CATEGORIES, AND CONCEPTUAL ANOMALIES

In order to survive and to perpetuate itself, every human culture must be based on a cohesive and consistent system of conceptual categories through which its members can understand the world around them. Yet any such system, no matter how carefully worked out, is bound to confront experiences in nature and in the supernatural that do not comfortably fit its categories nor support its premises [23, 24]. Cultures like ours, whose conceptual systems are founded on principles of man's superiority to nature, are especially challenged to develop successful ways of dealing with powerful natural and supernatural experiences which demonstrate the inadequacy of their belief systems. Birth is one such experience. The unique constraints on reality inherent in our system of core values and beliefs ensure that the natural process of birth will confront our society with a thorny set of philosophical problems concerning its relationship to the individuals which comprise it, and to the larger natural and cosmic worlds which sustain and encompass it. Some of these problems are universal to all human cultures; others stem from our society's uniquely profound commitment to a belief system which I term the technological model of reality. Because any understanding of the conceptual role played by American obstetrics in American culture must first encompass this model, we will turn here to a brief consideration of its history and basic premises.

THE TECHNOLOGICAL MODEL OF REALITY

According to Carolyn Merchant in *The Death of Nature* [25], it was during the seventeenth-century period of the rapid commercial expansion of Western society that the machine replaced the organism as the underlying metaphor for the organization of man's universe. (Prior to this time, the earth had been viewed as a living organism infused with a female 'world-soul'.) Descartes, Bacon, Hobbes, and others developed and widely disseminated a philosophy which assumed that the universe is mechanistic, following predictable laws which those enlightened enough to free themselves from the limitations of medieval superstition could discover through science and manipulate through technology. These ideas fit in so well with the already ancient Western cultural belief in man's right to dominate nature (chartered in *Genesis*) that by the end of the seventeenth century they had become the philosophical cornerstones on which rested the belief system of Western society.

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†An episiotomy is a surgical incision of the vagina to widen the birth outlet:

> The doctor has a sincere belief that an episiotomy protects the fetal skull and brain, shortens the second stage of labor and thus reduces the chance of minimal brain damage from hypoxia [oxygen deprivation]. . . . prevents later prolapse of the uterus, and also protects against third degree tears of the perineum [17, p. 12].

That birth without episiotomy will result in prolapse of the uterus, or in weakened support of the bladder for excessively stretched muscles has never been proven, nor has the assumption that it will protect the fetus from damage [3, p. 98]. However, in a scientifically controlled study of the outcomes of planned home vs planned hospital birth, in which the couples participating were matched for age, risk factors, and socioeconomic status [79], there were nine times as many episotomies (supposed to prevent tearing) in the hospital group and nine times as many severe third- and fourth-degree tears in the hospital group. Explains Michelle Harrison:

> Think of the episiotomy this way: If you hold a piece of cloth at two corners and attempt to tear it by pulling at the two ends, it will rarely rip. However, if a small cut is made in the center, then pulling at the ends easily rips the cloth. Doing an episiotomy is analogous, and sometimes results in tears that extend into the rectum. Physicians argue that this "clean" tear is more easily repaired than the ragged one that occurs when a woman tears without a cut. My experience has been that the small tears that sometimes occur without episiotomy are easy to stitch and less bothersome to the woman. Episiotomies, once repaired, are often debilitating and are the source of much pain in the post partum period [3, p. 97].

‡In 1970 the national Cesarean section rate was around 4%. By 1987 it had jumped to 24.4%, according to the most recent statistics available from the National Bureau of Vital Statistics, Washington, DC. This dramatic increase in the number of Cesareans performed in the United States has produced no subsequent improvement in infant or maternal mortality rates.

As a result of this switch in base metaphors, nature, society, and the human body soon came to be viewed as composed of 'interchangeable atomized parts' that could be repaired or replaced from the outside. Merchant says:

> [These philosophers] transformed the body of the world and its female soul.... into.... a mechanical system of dead corpuscles, set into motion by the creator, so that each obeyed the law of inertia and moved only by external contact with another moving body.... Because nature was now viewed as a system of dead, inert particles moved by external, rather than inherent forces, the mechanical framework itself could legitimate the manipulation of nature [25, p. 193].

Under this model, God set in motion a chain of events. Man could discover the laws by which these events proceeded, and could intervene in these events for his own benefit. Power was to be legitimately "derived from active and immediate intervention in a secularized world" [25, p. 193]. But there were restrictions on this power, as under this model humans were limited by the divinely imposed—albeit strictly mechanical—limitations of the natural and cosmic worlds. In today's world, these restrictions have been conceptually—and significantly—removed. Modern technology has 'progressed' far beyond what was imaginable to the seventeenth-century philosophers who originated the mechanical model. There is a promise inherent in today's technology peculiar to this century and critical to our cultural future.

To the earlier philosophers, the phenomenon of death was the inevitable fate of every human body-machine, and while the birth process came to be seen as mechanical, the phenomenon of conception remained a mystery beyond human manipulation or control. But for present generations, modern technology holds the twin promises of our actual creation of life, and our actual transcendence of both death and the planetary bounds of nature. Cryogenic suspension, test-tube conception, and space travel are physiological realities today, whispering the promise of ultimate transcendence through technology tomorrow.

MEDICINE AS A MICROCOSM OF AMERICAN SOCIETY

The widespread cultural acceptance of the mechanical model in the seventeenth century was accompanied by the fragmentation of the system of organized religion which had unified the conceptual framework of European society. As the mechanical model itself became the conceptual factor "unifying cosmos, society, and self" [25, p. 192], the primary responsibility for the human body, a responsibility which had once belonged to religion, was assigned to the medical profession. This developing science had taken the mechanical model as its philosophical foundation, and so was much better equipped than religion to take on the challenging conceptual task of transforming the human body, quite clearly an organism, into a machine—a transformation which was crucial to the development of Western society.

The elaboration of an intelligible conceptual universe is an essential step in the formation and continuation of any society. In such a universe, the founding metaphors for cosmos, culture, and individual self must be consistent with each other, so that each element becomes a scaled-down version of the other. As the basic vehicle of human, and thus social, existence, the human body must officially reflect society's vision of itself. If a society chooses to see itself and the universe it inhabits as purely mechanistic, then it must also see the human bodies which comprise it as mechanistic. The problem here, of course, is that bodies are not machines, and therefore the human body represents a great conceptual challenge to the technological model. And so it became both the cultural mission and the vested interest of Western medicine to prove the ultimate truth and viability of this model by making the body appear to be as mechanistic as possible. Medicine's eventual success in this mission—a success which was not at all guaranteed until the introduction of the germ theory of disease in the late 1800s [26, p. 236; 27, p. 30]—played a major role in the permeation of the machine metaphor into every aspect of American life.

Along with responsibility for maintaining the consistency of our dominant belief system, doctors hold another social duty which had previously been the responsibility of the medieval priest—namely, that of inculcating the basic tenets of this belief system into individual members of society. It is no cultural accident that doctors themselves must undergo an eight-year long initiatory rite of passage, a process of socialization so lengthy and thorough that at its end they will become not only physicians but society's representatives [28]. For our medical system encapsulates the core values of our society which stem from its technological model of life, and thus is well-qualified to transmit these values. American biomedicine's cures are based on science, effected by technology, and carried out in institutions founded on principles of patriarchy and the supremacy of the institution over the individual. These medical institutions are especially effective as mechanisms through which society's core values can be perpetuated because the hierarchical principles on which they are organized allow responsibility to be so generalized and diffused that few individuals have enough power to fundamentally alter how things are done. Individual physicians who try to change 'the system' often find themselves thwarted and stymied by other physicians, by hospital administrators, and ultimately by the combined forces of the legal and business systems of our society.

In very recent times, the threat of lawsuits and the rising cost of malpractice insurance have become major social deterrents against the efforts of individual physicians to humanize and personalize American medicine. To quote a Texas obstetrician:

> Certainly I've changed the way I practice since malpractice became an issue. I do more c-sections, that's the major thing. And more and more tests to cover myself. More expensive stuff. We don't do risky things that women ask for—we're very conservative in our approach to everything.... In 1970 before all this came up, my c-section rate was around 4%. It has gradually climbed every year since then. In 1985 it was 16%, then in 1986 it was 23%.

These legal and financial deterrents to radical change powerfully constrain our medical system, in effect forcing that system to precisely reflect and to

actively perpetuate the core belief and value system of American society as a whole. Thus, this medical system can most productively be understood as American society's microcosm—the condensed world in which our society's deepest beliefs, greatest triumphs, and grossest inadequacies stand out in high relief against their cultural background. For this reason, the anthropological study of this system can be particularly revealing. And for the same reason, our medical system is in a unique position to respond to conceptual challenges to the core beliefs of American society which center around that basic social unit for which medicine is responsible—the human body.

THE BODY AS MACHINE

The human body presents a profound conceptual paradox to our society, for it is simultaneously a creation of nature and the focal point of culture. How can we be separate from nature when we are of it? Western philosophers such as Descartes and Bacon neatly resolved this problem for us in the 1600s when they established the conceptual separation of mind and body, upon which the metaphor of the body-as-machine depends. This idea meant that the body, as a mere part of mechanical nature, could be taken apart, studied, and repaired without fear of affecting the superior cultural essence of man—his mind.

In the seventeenth century, the practical utility of the application of this mechanical metaphor to the human body lay in its removal of the body from the purviews of religion and philosophy, as well as superstitution and ignorance. To conceive of the body as a machine was to open it up to scientific investigation and get on with the research, leaving all bothersome questions of spirituality and the integrity of the individual to the priests and philosophers. (The same questions, by the way, kept the Chinese from any type of surgical intervention into the body's integrity for centuries.)

The philosophical links between the metaphor of the body-as-machine and the core value system current in the United States today are to be found in the category system of the Roman Catholic church, which was in place hundreds of years before it was transformed by the mechanical model in the 1600s. This symbolic system held that women were inferior to men—closer to nature, with far feebler intellects, little or no spirituality, and a strong propensity for lying and deceit, as is indicated in the following excerpt from the *Malleus Maleficarum (The Hammer of Witches)*, a witch-hunting manual so influential that it was used in witch trials throughout Europe for nearly three centuries after its publication in 1486:

> And it should be noted that there was a defect in the formation of the first woman, since she was formed from a bent rib, that is, a rib of the breast, which is bent as it were in a contrary direction to a man. And since through this defect she is an imperfect animal, she always deceives.... And all this is indicated by the etymology of the word; for "Femina" comes from Fe and Minus, since she is ever weaker to hold and preserve the faith [29, p. 121].

Had the mechanical model been impartially applied to both females and males, it could have done to the patriarchal belief system of the 1600s what women's liberation is trying to do today to our inherited version of that same system. Instead, the mechanical model as finally accepted by Western society over the next two centuries was simply overlaid on centuries-old Roman Catholic notions of sexual differences. Thus the transformation of the Catholic symbolic system by the mechanical model of the universe ultimately strengthened, rather than equalized, the patriarchal system in Europe.

In spite of the potential for establishing female equality also inherent in the Protestant Reformation and the Scientific Revolution (events which also transformed, and to some extent undermined the Catholic symbolic system), the men who established the idea of the body as a machine firmly established the male body as the prototype of this machine [30]. Insofar as it deviated from the male standard, the female body was regarded as abnormal, inherently defective, and dangerously under the influence of nature, which due to its unpredictability and its occasional monstrosities, was itself regarded as inherently defective and in need of constant manipulation by man [25, p. 2]. Thus, despite the acceptance of birth as mechanical like all other bodily processes, it was still viewed as inherently imperfect and untrustworthy. The demise of the midwife and the rise of the male-attended, mechanically manipulated birth followed close on the heels of the wide cultural acceptance of the metaphor of the body-as-machine in the West and the accompanying acceptance of the metaphor of the female body as a defective machine—a metaphor which eventually formed the philosophical foundation of modern obstetrics. Obstetrics was thus challenged from its beginnings to develop tools and technologies for the manipulation and improvement of the inherently defective and therefore anomalous and dangerous process of birth.

The natural process of birth confronts American society with at least eight major conceptual and procedural dilemmas. I choose the label 'dilemmas' (in the sense of "a problem seemingly incapable of a satisfactory solution" [31]), instead of 'oppositions' or 'anomalies', and present these dilemmas below in 'how to' terms, in order to emphasize that they are conceptual problems whose successful resolution depends on concrete, operational, 'how-to-proceed' plans for action in the face of potentially paralyzing paradox. These dilemmas may be summarized as follows:

(1) Our society is conceptually grounded in the technological model of reality, and thus has a vested interest in maintaining the conceptual validity of that model. Yet the natural process of birth appears to refute the technological model beause the birth process confronts us with graphic evidence that babies come from women and nature, not from technology and culture. This dilemma can be stated as follows: how to make the natural process of birth appear to confirm, instead of refute, the technological model?

(2) Our culture has a strong need to feel that it is in control of nature and its own future, and yet the birth process, on which the future of our society (still) depends, in many fundamental ways cannot be predicted or controlled. So the dilemma becomes, how to

create a sense of cultural control over birth, a natural process resistant to such control?

(3) The birthing of a child constitutes one of the most profoundly transformative and uniquely *individual* experiences a women will go through in her life. Across cultures, people seek ways to generalize such experiences—that is, to turn them into cultural rites of passage in order to make it appear that the transformation is effected, not by nature, but by the culture itself, and to utilize the transformative period to inculcate the individual with basic cultural beliefs and values through ritual. So the dilemma is, how to generalize an individual transformation?—that is, how to turn the natural birth experience which, left unshaped by ritual, would remain a purely individual transformation, into a cultural rite of passage?

(4) Rites of passage entail a period of liminality [32] in which the initiate is considered dangerous to society, because he or she is living in a transitional realm between social categories which is officially not supposed to exist; the fact that it does exist threatens the entire category system of the culture. Yet this danger, if properly handled, can be culturally revitalizing, as it carries the tantilizing possibility of cultural change. While too much contact with this danger can be culturally disruptive, some is essential for combating the constant dangers of entropy which threaten to undermine those societies who never flirt with the unknown. So the problem becomes, how to 'fence in' the dangers associated with the liminal period in birth, while at the same time allowing controlled access to their revitalizing power?

(5) Babies are natural beings, born essentially culture-less. Yet people universally seem to insist that being culture-full is what makes us human. How to enculturate a non-cultural baby?

(6) The majority of human cultures are strongly patriarchal, ours included. Yet birth, upon which men must totally depend for their own and their children's existence, is a purely female phenomenon. As such, birth poses a major conceptual threat to male dominance, as male dependence upon females for birth would seem to demand that women be honored and worshipped as the goddesses of their society's perpetuation. The dilemma here: how to make birth, a powerfully female phenomenon, appear to sanction patriarchy?

(7) The technology and the institutions in which we place our faith for the perpetuation of our culture are inherently asexual and impersonal. The birth process, upon which the perpetuation of our culture depends, is inherently sexual and intimate. Thus its intimacy and sexuality constitute yet another arena in which birth threatens to undermine the conceptual hegemony of the technological model. So those responsible for the cultural management of birth in the United States have had to devise culturally appropriate ways to remove the sexuality from the sexual process of birth.

(8) Our society remains strongly patriarchal, yet pays increasing lip service to the ideal of equality. While increasing numbers of women espouse this ideal, our culture will not survive in its present form unless these women can also be made to internalize the basic tenets of the technological model of reality. This dilemma is one of the most intriguing: how to get women, in a culture which pays increasing lip service to the ideal of equality, to accept a belief system which denigrates them?

Some of the above dilemmas are universal problems presented by the birth process to all human societies; others are specific to American culture. Each contains within it a fundamental paradox, an opposition which must be culturally reconciled lest the anomaly of its existence undermine the fragile conceptual framework in terms of which our society understands itself in relation to the universe. That conceptual anomalies do in fact have such power is abundantly illustrated throughout history: every new religion has promoted itself by daring to spotlight the conceptual discrepancies in the belief system that went before it [33]. Irreconcilable oppositions are tolerable as long as no one points the finger at them, but once they are put in front of the public eye, they can and often do topple governments.

Thus any society's ability to perpetuate its belief system depends greatly upon its ability to offer its members a variety of ways to mediate those conceptual oppositions which constantly threaten to tear it apart. As we have seen, the cultural responsibility for mediating these eight dilemmas in which birth and American culture are fundamentally opposed lies with our obstetrical profession. The response of the science of obstetrics to this cultural challenge has been: (1) to work out carefully a strong and consistent philosophical rationale for the management of birth which interprets birth specifically and exclusively in terms of the technological model; and (2) to develop a set of ritual procedures which could be uniformly applied to the natural process of human reproduction in order to conceptually transform it into a cultural process of human production, similar to the production of any other technological artifact. We will now turn to specific consideration of each dilemma and of how it is successfully (more or less) resolved by the rituals developed by American obstetrics.

THE CONCEPTUAL AND PROCEDURAL DILEMMAS PRESENTED TO AMERICAN SOCIETY BY THE NATURAL PROCESS OF BIRTH, AND RESOLVED BY OBSTETRICAL RITUALS

> In all cases, the immediate attempt of the human organism in the face of an unknown stimulus is to organize it within a known framework.
>
> Eugene d'Aquili and Charles Laughlin
> *The Neurobiology of Myth and Ritual*

First conceptual dilemma—natural vs technological reality: how to make the natural process of birth appear to confirm the technological model

In developing its belief system, every culture must make the basic conceptual move of separating itself from the natural world which spawned it, of deciding and then delineating where one ends and the other begins. Yet because it is only through nature that new members can enter culture, childbirth calls into question any conceptual boundaries a culture tries to establish between itself and nature. Such a visible and constant reminder that we can never really separate ourselves from the natural world presents an espe-

cially serious conceptual challenge to our culture, for it threatens to undermine the promise of ultimate technological transcendence inherent in our technological model.

A common cultural response to this type of conceptual threat is to wall it off from the mainstream of social life by creating special categories of 'tabu', which are often reflected in actual social spaces specifically constructed to contain the conceptual danger [23]. Another common cultural coping technique is to then defuse the conceptual bomb through the careful and consistent performance of rituals designed to mold the inconsistent phenomenon into apparent compliance with society's official belief system [34].

Our culture, like many others, has availed itself of both of these techniques in its struggle to cope with the conceptual threat presented by natural birth. We have tabued birth, removing it from everyday life by walling it off in hospitals (institutions specifically designed to isolate most of the boundary-threatening reminders of our subordination to nature presented to our culture by the human body, including disease and death, as well as birth [35, 36]). Finally, we have defused birth's explosive potential for conceptual upset by processing it through rituals specifically designed to eliminate the inconsistency between the birth process and our technological belief system, by making birth appear to confirm, instead of challenge, that belief system.

Shortly after entry into the hospital, the laboring woman will be symbolically stripped of her individuality, her autonomy and her sexuality as she is 'prepped'—a multi-step procedure in which she is separated from her husband, her clothes are removed, she is asked to put on a hospital gown, her public hair is shaved or clipped, and she is ritually cleansed with an enema [37]. Now marked as institutional property, she may be reunited with her husband, if he chooses to be present, and put to bed. Her access to food will be limited or prohibited, and an intravenous needle may be inserted in her hand or arm. Symbolically speaking, the IV constitutes her umbilical cord to the hospital, signifying her now-total dependency on the institution for her life, telling her not that she gives life, but rather that the *institution* does.

The laboring woman's cervix will be checked for degree of dilation, at least once every two hours and sometimes more often. If dilation is not progressing in conformity with standard labor charts, pitocin (a synthetic hormone) will be added to the intravenous solution to speed her labor (80% of the women in my study group were given pitocin, or 'pitted'). This 'labor augmentation' clearly indicates to the women that her machine is defective, as it is not producing on schedule, in conformity with production timetables (labor time charts). The mechanicity of her labor will be further demonstrated by the administration of analgesia and/or anesthesia; the ensuing physiological separation of her mind from her body thus effected quite clearly shows her that the body-machine which produces the baby is quite a different entity from her individual self. This message is intensified by the external electronic fetal monitor, attached to her body by a large belt strapped around her waist to monitor the strength of her contractions and the baby's heartbeat:

> The vision of the needle travelling across the paper, making a blip with each heartbeat, [is] hypnotic, often giving one the illusion that the machines are keeping the baby's heart beating [3, p. 90].

The internal monitor, attached through electrodes to the baby's scalp, communicates the additional message that the baby-as-hospital-product is in potential danger from the inherent defectiveness of the mother's birthing machine.

As the moment of birth approaches, there is an intensification of actions performed on the woman, as she is transferred to a delivery room, placed in the lithotomy position, covered with sterile sheets and doused with antiseptic, and an episiotomy is cut to widen her vaginal opening. The lithotomy position, in which the woman lies with her legs elevated in stirrups and her buttocks at the very edge of the delivery table, completes the process of her symbolic inversion from autonomy and privacy to dependence and complete exposure, expressing and reinforcing her powerlessness and the power of society at the supreme moment of her own individual transformation. The sterile sheets with which she is draped from neck to foot enforce the clear delineation of category boundaries, graphically illustrating to the woman that her baby, society's product, is pure and clean, and must be protected from the fundamental uncleanness of her body and her sexuality. The delineation of basic social categories is furthered by the episiotomy, which conveys to the birthing woman the value and importance of the straight line—one of the most fundamental markers of our separation from nature. Of equal significance, the episiotomy transforms even the most natural of childbirths into a surgical procedure; routinizing it has proven to be an effective means of justifying the medicalization of birth. Estimates of episiotomy rates in first-time mothers (primagravidas) range from 50 to 90%; large teaching hospitals often have primagravida rates above 90%. (Multigravida rates are estimated at 25–30% [38].)

The obstetrician instructs the mother on how to push, catching the baby and announcing its sex, then handing it to a nurse. The obstetrician then caps off the messages of the mother's mechanicity by extracting her placenta if it does not come out quickly on its own, sewing up the episiotomy, and ordering more pitocin to help her uterus contract back down.

Finally the new mother, now properly 'dubbed' as such through her technological annointings, will be cleaned up and transferred to a hospital bed. Through these procedures, the natural process of birth is deconstructed into identifiable segments, then reconstructed as a mechanical process. Birth is thereby made to appear to confirm, instead of to challenge, the technological model of reality.

Of course, there are many variations on this theme. Many younger doctors are dropping preps and enemas from their standard orders (although several complained to me that the nurses, also strongly socialized into the technological model, frequently administer them anyway). Increasing numbers of women opt for delivery in the birthing suite or the

LDR (labor–delivery–recovery room), where they can wear their own clothes, do without the IV, walk around during labor, and where the options of side-lying, squatting, or even standing for birth are increasingly available. (The fact that many of the procedures analyzed above can be instrumentally omitted underscores my point that they are rituals.) Yet in spite of these concessions to consumer demand for more 'natural' birth, a basic pattern of consistent high-technological intervention remains: most hospitals now *require* at least periodic electronic monitoring of all laboring women; analgesias, pitocin, and epidurals are widely administered; and one in four will be delivered by Cesarean section. Thus, while some of the medicalization of birth drops away, the use of the most powerful signifiers of the woman's dependence on science and technology intensifies.

Second conceptual dilemma—how to create a sense of cultural control over birth, a natural process resistant to such control

Underneath our stubborn insistence on the mechanistic nature of birth hide the truths of its natural unpredictability and spiritual unknowability. Because ritual mediates between cognition and chaos by appearing to restructure reality, across cultures and throughout history, humans have chosen it as the most effective means of overcoming their fear of the mystery and unpredictability of the natural and cosmic realms. To precisely perform a series of rituals is to feel oneself locked into a set of conceptual gears which, once set in motion, will inevitably carry one all the way through the perceived danger to a safe and predictable end [39, 40, p. 199; 41, pp. 226–227]. Just so do obstetrical rituals serve physicians and nurses. It is these routines which psychologically enable medical personnel to attend births; without their routines, birth attendants would feel powerless in front of the power of nature, conceptually adrift in a category-less sea of uncontrollable and uninterpretable experience.

To understand one of the communicative functions the repetitive patterning of obstetrical procedures has for obstetrical personnel, the value of careful adherence to form in ritual must be appreciated. Moore and Myerhoff [42] observe that order and exaggerated precision in performance, which set ritual apart from other modes of social interaction, serve to impute "permanence and legitimacy to what are actually evanescent cultural constructs". This establishment of a sense of 'permanence and legitimacy' is particularly important in the performance of obstetrical procedures because of the limitations on the power the obstetrician's technological model gives him over the events of birth.

Although a culture may do its best through ritual to make the world appear to fit its belief system, reality may occasionally perforate the culture's protective filter of categories and threaten to upset the whole conceptual system. Thus obstetricians and nurses who have experienced the agony and confusion of maternal or fetal death, or the miracle of a healthy birth when all indications were to the contrary, know at some level that ultimate power over birth is beyond them, and may well fear that knowledge. In such circumstances, humans use ritual as a means of giving themselves the courage to carry on [39], as through its careful adherence to form, ritual mediates between cognition and chaos by appearing to restructure reality. The format for performing standard obstetrical procedures provides a strong sense of cultural order imposed on and superior to the chaos of nature, as is indicated in the following quote from an obstetrical text:

> Except for cutting the umbilical cord, the episiotomy is the most common operation in obstetrics. The reasons for its popularity among obstetricians are clear. It substitutes a straight, neat surgical incision for the ragged laceration that otherwise frequently results. It is easier to repair and heals better than a tear. It spares the fetal head the necessity of serving as a battering ram against perineal obstruction.... [which] may cause intracranial injury. Episiotomy shortens the second stage of labor [43, p. 430].

As obstetricians began to take on the cultural responsibility for birth, their own belief in birth's inherent danger made essential their development of rituals which they could rely on to give them the courage to daily face the challenge nature presents.* Thus the performance of obstetrical rituals themselves had to take on the predictable pattern of a mechanical process. From the prep to the episiotomy, these procedures had to serve for birth attendants as the cranking gears which would mechanically and inevitably carry the birth process right on through the perceived danger to a safe and predictable end.† As one obstetrician put it:

> Why don't I do home births? Are you kidding? By the time I got out of residency, you couldn't get me *near* a birth

*The strength of this belief in birth's inherent danger among early obstetricians is evidenced in the following 1920 comment by one of their most prominent members, Dr Joseph B. DeLee:

> So frequent are the bad effects of birth, that I have often wondered whether Nature did not deliberately intend women to be used up in the process of reproduction, in a manner analogous to that of the salmon, which dies after spawning [82].

†This tendency for the performance of one obstetrical procedure to mechanically follow another is frequently referred to in the lay literature as the "cascade of interventions", since often the performance of one procedure (e.g. the administration of pitocin) necessitates several others (e.g. electronic monitoring, Cesarean section). Following is an example of how this process often works:

> Dr. Roberto Caldeyro-Barcia has demonstrated that uterine contractions stimulated with pitocin reach over 40 mm Hg pressure on the fetal head. The quantity and quality of uterine contractions are greatly affected when oxytocin is infused. The contractions tend to be longer, stronger, and with shorter relaxation periods in-between. As a result, the fetus is compromised.... With each uterine contraction, blood supply to the uterus is temporarily cut off.... [which can lead to] oxygen deprivation and cerebral ischemia causing the grave possibility of neurological sequellae. Truly the fetus has been challenged, and the EFM [electronic fetal monitor] dutifully records the stressed fetal heart rate. With suspicions confirmed, a diagnosis of fetal distress is noted and elective Cesarean section is the treatment of choice [80, p. 153].

without five fetal monitors right there, and three anesthesiologists standing by.

The same kind of psychological reassurance is sought by many birthing women who must individually face the same unknowns. Whether obstetrical rituals are traumatizing or empowering to these women, such rituals do usually provide at least a sense of certainty and security that their babies will get born, and that neither they nor their babies will die. But they are also, most reassuringly, shown in most cases that a natural process perceived as terrifying and uncontrollable can be controlled and rendered conceptually safe when its course is mechanistically channelled into predictable pathways:

> I was scared to death of the whole thing. I didn't want to have anything to do with it, didn't want to know about it. I just wanted the doctor to take care of it and give me my baby. And when I got to the hospital they put me out, and when I woke up they showed me my baby girl, and that was just fine with me [Toni].

> I was terrified when my daughter was born, because I had had a section and I had been told, you know, that once you have a section you can't have a baby by vaginal delivery because you will burst or something and I was kind of scared. I just knew I was going to split open and bleed to death right there on the table, but she was coming so fast they didn't have time to do anything to me.... I would rather have had a section like my other births.... I like sections, because you don't have to be afraid [LeAnn].

Cumulatively, obstetrical procedures such as fetal monitoring, the insertion of IVs, the administration of pitocin, the use of anesthesia, amniotomy, the lithotomy position and the episiotomy, forceps or Cesarean section are felt by those who perform them (and often by those upon whom they are performed) to transform the unpredictable and uncontrollable natural process of birth into a relatively predictable and controllable technological phenomenon which reinforces our society's most fundamental beliefs about the superiority of technology over nature.

Third conceptual dilemma—how to generalize an individual transformation

This third conceptual dilemma presented by the naturally transformative birth process is one faced by all human cultures at various points in the human life cycle: how to generalize an individual transformation. Such generalization is necessary to ensure conformity with the official social belief system; otherwise, unchannelled individual transformative experiences might (and often do) challenge the dominant belief system. Of course, most societies resolve this dilemma by routing individual transformations through an established and generalized process known as a rite of passage—a bridge of rituals designed to safely convey an individual in transition from one social state to another, and to cognitively transform that individual in his/her own eyes and in those of the dominant society.

A 'ritual' is a patterned, symbolic and transformative enactment of a cultural belief or value. The rituals of initiatory rites of passage utilize the communicative power of symbols to enact the basic tenets of the society's dominant reality model, and to transmit these beliefs and values to the initiates. While intellectually received messages, such as subjects taught in school, can be consciously accepted or rejected, a symbol's message is often received below the level of consciousness, through the body and the emotions (e.g. the Marine basic trainee sleeping with his rifle) and thus may have a profound effect of which the initiate is but dimly aware. In most cases, the future of the society conducting the rite depends to a great extent on the thorough internalization of its core belief and value system by the initiates. Thorough emotional and physiological integration of American society's profound respect for and dependence on technology and the male-dominant cultural world built by that technology is, from society's perspective, of special importance during the woman's rite of passage into motherhood, for she will be the primary socializer of society's new member—her child.

A common tenet of modern thought holds that the transfer of the birthplace from home to hospital which has taken place in American society has represented the de-ritualization of what in other, more 'primitive' societies, has traditionally been a rite of passage laden with superstition and tabu. On the contrary, however, as we have seen, the placement of birth in the hospital has resulted in a proliferation of rituals surrounding this natural physiological event more elaborate than any heretofore known in the 'primitive' world. These transformative rituals carry and communicate cultural meaning far beyond their ostensibly instrumental ends. In so doing, they resolve another potentially worrisome dilemma peculiar to a society which insists on appearing as rational, scientific, and non-ritualistic as possible: how to make birth into a rite of passage that does what it is supposed to do (transform the initiates through inculcating them with core social values and beliefs) without *looking* ritualistic at all.

Moore and Myerhoff point out that unusually extensive elaboration of ritual is most likely to occur when the ideological system enacted by a series of rituals is not explicit,

> precisely because more presentation and persuasion, more communication of information is needed when ideology is scanty or fragmentary, and context not reliable as when background and presumption of shared belief and comprehension are limited [42, p. 11].

The technologically-based core value system of our culture is below the level of consciousness for most of us, although it pervades our experience in countless ways. The enormous variety of religious, philosophical, and ethnic core value and belief systems in this country necessitates special efforts on the part of the representatives of society-at-large to preserve and to perpetuate its dominant core value system. Thus the largest social institutions which are founded on the principles of that system, and which can be counted on to touch the lives of the vast majority of American citizens, become primary socializing agents for the inculcation of mainstream American beliefs and values into young citizens, beginning with their birth in hospitals and continuing throughout their requisite years in schools. Even more profound indoctrina-

tion of society's core values can be accomplished with adults in special, intensely ritualized situations (which again, don't look to us like the rites of passage they really are) such as college football [44], Army basic training [45], medical school and residency [28, 46, 47], and hospital birth [22].

Moreover, most becoming mothers, who are undergoing quite powerful and psychologically compelling physiological and cognitive transformations, feel a very real need for social acknowledgement and cultural entrainment to give meaning and order to this often chaotic and bewildering experience. It is precisely these needs, of course, which officially conducted rites of passage are specifically designed to fulfill. Those birthing women who, consciously or unconsciously, seek in the hospital both official recognition by society of their personal transformations, and official confirmation of the rightness and validity of their own technologically-based belief systems, will feel slighted, uncared for, and downright ignored if at least some standard obstetrical routines are *not* performed upon them, and I quote one such woman:

> My husband and I got to the hospital, and we thought they would take care of everything. I kept sending my husband out to ask them to give me something for the pain, to check me—anything—but they were short-staffed and they just ignored me until the shift changed in the morning.

Many women, of course, would prefer to be so ignored! But in spite of the uniqueness of each birth and each woman who gives birth, the standardized obstetrical procedures give this, the ultimately transformational process, the reassuring appearance of sameness and conformity to the socially dominant reality model.

Fourth conceptual dilemma—how to 'fence in' the dangers associated with the liminal period in birth, while at the same time allowing controlled access to their revitalizing power

A fundamental paradox presented by most initiatory rites of passage to the cultures which design them lies in their official recognition and indeed, publicizing, of officially non-existent transitional stages of being. The category systems of most cultures allow individuals to be either 'here' or 'there', but not in-between, for the existence of in-between calls into question the absoluteness of 'here' and 'there' [23]. It is a well-documented feature of rites of passage that those in the liminal phase must be conceptually, as well as physically, isolated from the rest of society [48, 49] as their existence poses a threat to the entire category system of that society. Yet it is also well-documented that this very threat can be of tremendous benefit to society, for in the process of the symbolic inversion of a culture's category system lies the potential for the expansion, growth, and change of that system, and thus of the culture itself. This brings us to the fourth conceptual dilemma presented to American society by birth: how to 'fence in' the dangers associated with the liminal period in birth, while at the same time allowing controlled access to their revitalizing power.

Roger Abrahams [50] points out that a tremendous amount of energy is generated in the profound symbolic inversion of a culture's deepest beliefs which is characteristic of the liminal period in initiation rites. He states that while this energy may remain unfocused for the initiates, who often do not know exactly where they are nor exactly what is happening to them, it is focused and thus usable by the elders conducting the rite. Therefore, Abrahams suggests, initiatory rites of passage may be carried out as much for the benefit of these elders as for the initiates [50, pp. 12 and 39b]. Brigitte Jordan illustrates the symbolic process through which the focusing of the energy generated by the birth process away from the mother and toward the medical personnel who attend her takes place:

> In hospital deliveries, responsibility and credit are clearly the physician's. This becomes visible in the handshake and "thank-you" that resident and intern (or intern and medical student) exchange after birth. "Good work" is a compliment to a physician by somebody qualified to judge, namely another physician. Typically, nobody thanks the women. In the common view, she has been delivered rather than given birth [51].

This interactional pattern of focusing the creative energy of birth onto the physician works to revitalize and perpetuate the medical system in its present form, and thus our core value system is perpetuated as well. Many women attempt to reclaim this revitalizing birth energy through subsequent, self-empowering births in the hospital and at home:

> I sat there. . . . and then I realized—Hey, I did it! I wanted to have the baby at home and I read the books to figure out how and then I really did it! It worked! I didn't have to go to the hospital at all; the doctors didn't touch me! Then I realized that if I could do that great thing, perhaps I could do other things as well [52].

Women scholars in general need to consider the potential cultural significance of the re-focusing of the creative birth energy away from medical personnel and back onto the mother and her family through the rituals of home birth.

Fifth conceptual dilemma—how to enculturate a non-cultural baby

Although birth is certainly a passage for the baby from the womb to the world, it is not a *rite* of passage for the baby unless, as for the mother, specific cultural actions are taken to make it so. A fifth conceptual problem with which the birth process confronts our culture, and indeed every culture, is how to find an effective means of removing new members from the non-cultural realm of the womb and placing them in the cultural realm of society; in other words, how to enculturate a non-cultural baby.

In our medieval past, before the mechanistic model of the universe had fragmented our religious worldview and displaced the Catholic religion as our society's conceptual foundation, the symbolic enculturation of new members of society was accomplished through the ritual of baptism. Today, we do it through the rituals of hospital birth. Our babies are baptized by inspection, testing, bathing, diapering, and wrapping in a technological process which extends even to the alteration of their internal

physiology through the administration of a vitamin K shot* and antibiotic eye drops.† Thus properly enculturated, the newborn is handed by the nurse to the mother to 'bond' for a short amount of time—an enactment of the technological model's insistence that society gives the baby to the mother, instead of the other way around. And what society gives, society can take away. After the 'bonding period', the nurse takes the baby from the mother to the nursery and places it in a plastic bassinet for a ritual four-hour period of separation, thereby enacting the tacit cultural stance that society has the right to take the baby from the mother because the baby utimately belongs to society.‡

Of course, we have chosen to develop medical instead of religious rituals to fulfill the universal social need for symbolic enculturation of the newborn because we have taken ultimate responsibility for the human body, for the perpetuation of society, and for the performance of any necessary mediation between society and the supernatural that concerns the body, away from the churches and given it to our medical system [53]. So medical procedures replace religious ones, fulfilling many of the same purposes and satisfying many of the same cultural and psychological needs. Moreover, while most cultures seem content to use their baptismal rituals simply to make the baby 'human', we in our arrogance use our entire set of birth rituals to actually make it appear that our babies are cultural products. To quote one San Antonio obstetrician:

> It was what we all were trained to always go after—the perfect baby. That's what we were trained to produce. The quality of the mother's experience—we rarely thought about that. Everything we did was to get that perfect baby.

Another obstetrician expresses the prevailing cultural belief that only the combination of technology and skilled technicians can 'deliver' those perfect products to society:

> My philosophy is using what I've been taught to use and what I've seen in my experience works, keeping in mind safety above all else, and not compromising safety for social reasons. If women put demands on me where I can't monitor the baby, or have an IV in them when they suddenly abrupt and go into shock, start hemorrhaging and go into shock before I can get an IV in—no, I can't live with that, I can't put myself—or wouldn't put them—in that kind of jeopardy. They can go to somebody else. There are guys out there that will do anything they ask, who make birth a social event. And I think they jeopardize the woman's safety and the baby's safety.

Sixth conceptual dilemma—how to make birth, a powerfully female phenomenon, appear to sanction patriarchy

In medieval Europe, birth was an exclusively female phenomenon, but the baby was considered impure and unable to go to heaven until baptized by a male priest. At the baptismal ceremony the child was exorcised, implying that while in the female realm of the womb it had been possessed by the devil [54, p. 36]. Should the babe die before baptism, it would remain in perpetual limbo, subject to the torments of the damned [55]. Thus the powerfully female phenomenon of birth was channelled, albeit after the fact, into sanctioning patriarchy after all. The ritual of baptism clearly delineated the high cultural value placed on the male realm, and the fundamental cultural devaluation of the female realm characteristic of medieval Europe. As is true of so many of our cultural institutions, modern obstetrics is grounded in the medieval Catholic Church's value-laden system of symbolic oppositions between right and left, male and female [56]—a belief system which held unadulterated conceptual hegemony over Western Europe for over 1000 years.

If, as I and others argue [30, 57, 58, 59], the basic thrust of our technology still is toward the right hand of maleness, then the birth process confronts American society with the same conceptual challenge faced by medieval society: how to make birth, a powerfully female phenomenon, appear to sanction patriarchy. For in spite of its technology and its cleavage to a patriarchal system of social life, our society's perpetuation still depends on women. The conceptual tension inherent in this paradox is also neatly dissolved by the rituals of hospital birth. These procedures not only make birth appear to be a mechanistic process by which a baby is produced, but also make the men who 'manage' that process appear to be the producers.

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*Vitamin K is routinely injected into all newborn babies. The rationale for this is that newborns are born without vitamin K in their systems, because they have 'inadequate intestinal flora'. Lack of vitamin K can lead to hemorrhage in the newborn after several days [43, p. 186]. However, breastfeeding the baby will quickly establish adequate intestinal flora without the need for vitamin K or the pain of an unnecessary shot. Too early injection of vitamin K in newborns has been implicated as a possible cause of neonatal jaundice.

†Silver nitrate or an antiobiotic substitute is placed in the eyes of almost every hospital-born baby in the United States to prevent the development of blindness in case the mother should have gonorrhea. Its administration, or that of a substitute, is required under state law in all 50 states, on the theory that it is impossible to know which ones need it and which ones do not. Silver nitrate binds with the membranes of the baby's eyes, causing redness, irritation, swelling, and blurred vision in the first few days of her life, thus interfering with visual learning and adjustment to the new environment.

‡More dramatic examples of society's claim to ultimate ownership of the baby are provided by Irwin and Jordan in their recent article on court-ordered Cesarean sections [81]. The authors document and analyze various recent cases in which a pregnant mother was forced or nearly forced to have a Cesarean against her will, on the grounds that the state had the baby's best interests in mind, while the mother did not. In one case, in Denver, Colorado, attorneys and a judge were called into the labor room of an obese woman who was refusing a Cesarean which had been ordered by her obstetrician on the basis of meconium staining in the amniotic fluid and signs of fetal distress as read by both external and internal monitors. (The Cesarean procedure carries special risks for obese women.) Declaring the fetus "dependent and neglected", the judge pronounced the baby a ward of the state until birth and ordered the Cesarean, which was performed against the mother's will. The baby was born healthy, which surprised the physicians, but the mother suffered from delayed healing of her incision.

A future trend in obstetrics is the increasing number of women who will be practicing this speciality; half of the students in many medical schools today are female. In 1986, 69% of medical school graduates who said they would choose obstetrics were women, compared to 34% in 1982 [60]. Nevertheless, most female obstetricians practicing today went through medical training as a decided minority and so were often constrained to overcompensate for being female:

> Women in obstetrics are, as a group, more in philosophical agreement with their male medical colleagues than with female midwives. They are not even necessarily more polite to patients or more willing to accept the patient's having a more active role in her own care. This may be due to a number of factors: the selection process of medical schools; the socialization process during medical education; psychological factors related to the choice of obstetrics as a specialization; the stress inherent in obstetric residency programs; and the fact that women in medicine comprise a small minority . . . . they may feel that they have to outdo the dominant group—males—on male terms [61, p. 139].

Thus far these women have in general made no significant changes in the conduct of American birth. What differences the power of their increasing numbers will make remains to be tracked by students of the American way of birth.

Seventh conceptual dilemma—how to remove the sexuality from the sexual process of birth

Of course, if babies are to be technologically instead of naturally produced, and if their production is going to sanction patriarchy instead of equality, then sexuality is going to become an anomaly in relation to birth, which brings us to our seventh dilemma: how to remove the sexuality from the sexual process of birth.

Women's sexuality has long been a problematic issue for Western society [e.g. 62, 63]. In the Middle Ages, it was thought to be a devil-inspired seducer of righteous males [29]. Today, sexuality remains a potent conceptual threat to the creative powers of technology, and female sexuality remains the chief reminder of that threat. As a number of physicians and medical anthropologists and sociologists have pointed out, our medical system has done a thorough job of convincing women of the defectiveness and dangers inherent in their specifically female functions [30, 58, 64–70]. The hysterectomy, for example, is the most commonly performed unnecessary operation in the United States, with the radical mastectomy in second place [71]. It has been a recurrent theme in American medicine that to remove a woman's sexual organs is to restore her body to full health and greater potential for productive life.

Our society has developed no more effective teacher of this doctrine than obstetrical rituals. As Sheila Kitzinger [72] stresses, birth is a normal female sexual function (the fact that I feel the need to reference an authority on this point itself speaks eloquently for the de-sexualization of birth in our times), as is evident in Lynda's description of her labor:

> Labor for me was a total turn-on. Yes, there was pain—a lot of pain, and the most effective relief for it was stimulation of my clitoris. Larry rubbed my breasts and my clitoris and kissed me deeply and passionately for hours until the baby came. And when he had to go out of the room, I masturbated myself until he came back. I had lots of orgasms. They seemed to flow with the contractions. Even when I was pushing I wanted clitoral stimulation. It was the sexiest birth ever! And I loved every minute of it. I was completely alive and alove—turned on in every cell of my body. I felt that the totality of Larry and me—the fullness everything we were individually and together—was giving birth to our child.

Yet it is precisely female sexual functions which the technological model finds threatening and labels both 'defective' and 'tabu'. So effective are hospital routines at masking the intense sexuality of birth that most women today are not even aware of birth's sexual nature. For example, stimulation of the laboring woman's breasts and clitoris has been proven to be extremely effective in strengthening labor [73], yet is utterly tabu in most hospitals, where the synthetic hormone pitocin is administered intravenously instead. The routine performance of the episiotomy is another excellent example of the desexualization of birth in the hospital: an effective alternative recommended by many midwives is perineal massage with warm olive oil, far too overtly sexual a procedure for most obstetricians. Through pitocin and episiotomies, sterile gowns and sheets, enemas and pubic shaves, anesthesia and orange antiseptic, the intense and potentially ecstatic sexuality of birth is consistently and effectively masked. Just how intense that ecstasy can be is evidenced by midwife Jeanine Parvati-Baker:

> I feel the baby come down. The sensation is ecstatic. I had prepared somewhat for this being as painful as my last delivery had been. Yet this time the pulse of birth feels wonderful! I am building up to the birth climax after nine months of pleasurable foreplay. With one push the babe is in the canal. The next push brings him down, down into that space just before orgasm when we women know how God must have felt creating this planet.
>
> The water supports my birth outlet. I feel connected to the mainland, to my source. These midwife hands know just what to do to support the now crowning head, coming so fast. How glad I am for all those years of orgasms! Slow orgasms, fast ones, those which build and subside and peak again and again. That practice aids my baby's gentle emergence so that he doesn't spurt out too quickly. He comes, as do I [74].

Eighth conceptual dilemma—how to get women, in a culture which pays increasing lip service to the ideal of equality, to accept a belief system which denigrates them

The eight and final conceptual dilemma with which birth confronts American society constitutes a potential cultural bombshell: how to get women, in a culture which pays increasing lip service to the ideal of equality, to accept a belief system which denigrates them. As Richard Bauman once said, "folklore is about the politics of culture". For me personally, the decoding of the symbolic messages hidden behind the scientific guise of hospital routines has led to a chilling reminder of the twin political threats presented to women by our technological model of reality. On the one hand, this model deprives women of their innate uniqueness and power as birth-givers. On the other, it perpetuates our cultural belief in

women's innate physiological inferiority. And yet, because of the potential for conceptual egalitarianism inherent in technology, this model does contain certain conceptual advantages for women which, in the early part of this century, proved alluring enough for many women themselves to actively work for the cultural adoption of this model of birth.

The birth process in American culture is and always has been a matrix of gender differentiation. In the 1800s, when most women gave birth at home, motherhood was the central defining feature of womanhood, and women's appropriate domain was the home. Early feminists eagerly sought technological hospital birth, in the hope that it would constitute a positive step toward true equality of the sexes through removing the cultural stereotypes of women as weak and dependent slaves to nature. Many of these early feminists went to great lengths to achieve anesthetized hospital births [65, pp. 150–154; 70, pp. 171–195].

However, of course, instead of leading to equality, in its blanket categorization of the female body as an inherently defective machine, the technological model both reflects and perpetuates our profound cultural belief in the innate inferiority of women to the men who more perfectly mirror our cultural image of the properly functioning machine.

Thus our society is presented with the dilemma of how to get women to accept a belief system based on the machine, as this system entails the principle of the male as the physically and intellectually more perfect member of the species no less profoundly than did the belief system of the medieval Catholic Church upon which it was founded. This socialization is accomplished for American society by the rituals of hospital birth, as through these rituals, the full cultural force of the belief and value system on which our society is based is brought to bear on birthing women. Through techniques like electronic fetal monitoring, the use of pitocin to speed labor, and the common demand that the birthing process conform to hospital timetables, birthing women are graphically shown that their bodies are defective machines dependent on technological tools and on other, more perfect machines to give birth. While not all women internalize and accept this belief system, many do:

> It seemed as though my uterus had suddenly tired! When the nurses in attendance noted a contraction building on the recorder, they instructed me to begin pushing, not waiting for the *urge* to push, so that by the time the urge prevaded, I invariably had no strength remaining, but was left gasping, dizzy and diaphoretic. The vertigo so alarmed me that I became reluctant to push for any length of time, for fear that I would pass out. I felt suddenly depressed by the fact that labor, which had progressed so uneventfully up to this point, had now become unproductive [Merry].

In Merry's statement, we can observe her internalization of the message that her machine was defective. She does not say, "The nurses had me pushing too soon," but "My uterus had suddenly tired," and "Labor had now become unproductive."

After planning for a natural childbirth, Elizabeth gave birth to her first child by Cesarean section, although there was no sort of fetal or maternal distress:

> By the time the doctor finally got there and said we needed a C-section, we knew that he was right. I had been in labor for 24 hours, had been on pitocin for four of those hours, and had only dilated to four centimeters. It was clear to me by then that I would never be able to give birth by myself. My body just wasn't going to be able to do it. The Cesarean seemed the only logical choice.

What had changed during Elizabeth's hospital labor was not the condition of the baby but her perceptions of her abilities to give birth. Merry's and Elizabeth's experiences are representative of the frequent didactic success which obstetrical rituals achieve.

In contrast, Teresa and Debbie will represent for us here the also frequent failures of obstetrical rituals to succeed in their didactic and socializing goals. These women actively rejected the technological model as it was transmitted to them through obstetrical rituals, and so were empowered as individuals and as women by their hospital birth experiences:

> Giving birth.... was really satisfying.... I felt incredibly powerful and absolutely delighted. I felt that I knew exactly what was happening, that I was, you know, that it was really a neat kind of letting go, that being totally in control kind of feeling.... extremely positive and incredibly powerful. My perception of it was that I was in charge and these other people were my assistants. That was the way I really saw it. The doctor would say "Don't push," and I would say, "I am not pushing right now," as if it were my idea not to push right now. And when he told me to push, I would say, "No, I am waiting for the contraction," and then when it came I would push [Teresa].

> After I stood up to the obstetrician during my hospital birth, I started realizing that I could talk to a doctor like a person and not have to sit down and just listen and not say anything back.... So it changed me because I started having more confidence as far as getting what I want.... I am not intimidated any more.... it gave me more confidence about expressing what I know. When you're lying there flat on your back, and somebody is pointing their finger in your face, and screaming and yelling at you that you're going to kill your baby [because you won't have a Cesarean that you know you don't need], still to make a decision and not give in.... and be perfectly happy and sure of yourself that it is the right thing to do, it definitely carries over into other areas [Debbie].

The internalization of the technological view of their bodies as inherently defective machines (and of the inherent superiority of science, technology, and the patriarchal institutions which control and disseminate them) was avoided by 25% of the women in my study who, like Teresa and Debbie, actively rejected whatever they perceived as technological or institutional attempts at control of their hospital births. On the other hand, Merry's and Elizabeth's internalization of this model represents the experiences of the majority (63%) of the women of my study.* Given

*Most of these women seemed comfortable with the highly technological nature of their birth experiences, which served to strengthen and confirm the technological belief systems the women themselves held before entering the hospital. A small minority (9% of the overall sample of 100) of women in my study had entered the hospital with belief systems centering around the power of women as birth givers and the ideal of natural childbirth but, like Elizabeth, were forced into unwilling internalization of the technological model, with subsequent severe damage to their self-images. (The remaining 12% of the women in my study, adopting a completely different belief system which I term the wholistic model [19, 83], chose to give birth at home, as do approx. 1% of American mothers nationwide.)

our cross-cultural history of accepting belief systems that denigrate us, the level of our compliance with a belief system that will keep us forever on the left hand of health should come as no surprise. To claim back our biology demands a greater commitment to the conceptual notion of Women than most of us are willing to make. To let machines give birth instead of women, or to turn birthing women into machines allows us to ground our sense of social identity and security in the dominant belief system of our society—always a comforting place in which to take refuge from the unknown. The problem is, of course, that our continuing complicity in this system will solidify it perhaps beyond redemption.

CONCLUSION

As we have seen, any society's ability to perpetuate itself depends greatly on its ability to offer the participants in the belief system on which it is based a variety of ways to mediate those conceptual oppositions which constantly threaten to tear it apart—or at least to *appear* to reconcile them. It usually does not matter whether the oppositions are really reconciled, as long they are handled well enough for most believers to be able to act in the face of whatever contradictions linger on—an increasingly critical role these days, as our technology has made giving birth a *choice* for most American women. So as long as obstetrics appears to resolve the conceptual dilemmas presented by birth to American society, then women can find the courage to choose to have babies in spite of the natural risk perceived to be inherent in the birth process, and doctors can find the courage to attend them.

While the technological model remains dominant, few women will have the courage to choose to give birth or to attend birthing women without the conceptual resolution provided by obstetrical rituals. Those few who do make such a choice find it conceptually essential to completely reinterpret birth, under a different paradigm, as fundamentally safe. The paradigm of birth espoused by those women who choose to give birth at home has as its foundation a view of the female body as normal and healthy in its own right, and of the birth attendant's role as 'guardian of nature's processes' [61, p. 138] and as the woman's nurturer and guide:

> Pushing can be a delicate process of balancing the energy with your body when the baby's head starts coming out.... That is when a women may tear from pushing too hard and not being relaxed. Marimikel, the midwife, was very helpful in her support at this time. She would gently say, "That's good, that's good, now rest," guiding me carefully. Finally the top of Mela's head was out and I could reach down and touch her. This was such a blessing to feel her, to realize the complete circle of contact. She was outside of me, yet still in. I was aware of my energy becoming even more focused. I felt her whole head coming out. Imagine something thirteen and a half inches in circumference coming out of you! I knew my body was made to do this and it was: I didn't tear.
>
> It was another minute until another expansion came. I pushed down again, and she was completely born. What a miracle! This complete being came right out of me: toes, fingers, hands, spirit, body, energy and beauty [75].

Simple as this may sound, the adoption of such a paradigm by society-at-large would entail a complete shift in our core value and belief system. Such a shift is indeed the aim of a diverse coalition of home-birthers, home-schoolers, feminists, childbirth activists, organic farmers, environmentalists, spiritualists, and most of those involved in the wholistic health movement, including increasing numbers of medical doctors [3, 53, 71, 76–79]. All these groups seek to invert our core value system, eliminating patriarchy, and placing science, technology and institutions at the service of nature, individuals, and families, instead of the other way around. Their active attempts at this extreme of social subversion are often greeted with extremes of resistance from those groups culturally charged with representing the dominant society. Thus obstetricians across the country often seek to eliminate lay midwives, medical doctors to eliminate chiropractors and homeopaths, corporations to harass environmentalists, and the courts to punish those who wish to educate their children at home. Even within the medical profession itself, physicians who espouse and attempt to act upon alternative belief systems are often either actively persecuted or dismissed as 'radicals' by their colleagues. Said one such physician:

> One of the teachers most respected by the residents here is so respected because he can do a Cesarean in twelve minutes. His complication rate is horrendous because you can't help but butcher the woman when your emphasis is speed, but the residents don't seem to notice that. No residents scrub in on my deliveries because I don't do much, don't use the machines, so they think they have nothing to learn from me—they don't want to know about truly normal birth.

As an anthropologist I can see that our present birthing system has meaning and a purpose within its cultural context which it serves well, but as a human and a woman I can see that there are other meanings, other purposes which would be better served. The anomalies resolved by obstetrical rituals under the technological model could also be resolved, perhaps even more successfully, by the replacement of that model with one which honors both the birth process and the female body. In the current challenges to the conceptual hegemony of the technological model, we are seeing our core value system questioned in ways that may eventually result in significant social reform.

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