Open and Closed Knowledge Systems, the Four Stages of Cognition, and the Cultural Management of Birth: Part 2

Robbie Davis-Floyd

Abstract: This conceptual "think piece" appears in JOPPPAH in two parts. Part 1 looked at four Stages of Cognition, relating each of them to an anthropological concept: Stages 1 and 2 encode closed, rigid, or concrete thinking. Stage 1 incorporates *naïve realism* (our way is the only way), *fundamentalism* (our way is the only *right* way), and *fanaticism* (our way is so right that all others should be assimilated or eliminated). Stage 2 *ethnocentrism* insists that "our way is best." More open and fluid are Stage 3, *cultural relativism* (all ways are valid), and Stage 4, *global humanism* (we must seek ways that honor individual human rights).

Part II categorizes birth practitioners within these four Stages, while showing how ongoing stress can cause even the most fluid of thinkers to degenerate into Substage—a condition of cognitive regression, or "losing it," that can result in obstetric violence. I note how ritual can help practitioners ground themselves at least at a Stage 1 level and offer ways in which they can rejuvenate and re-inspire themselves. I also describe the persecution that Stage 4 practitioners often experience from fundamentalist or fanatical Stage 1 practitioners and officials, often referred to as the "global witch hunt."

Keywords: birth, culture, midwifery, obstetrics

Part 1 of this article related four levels or Stages of Cognition to anthropological concepts, distinguishing between open and closed

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systems. Stages 1 and 2 represent rigid or concrete closed-thinking. Stage 1 thinking was further divided into three parts: *naïve realism* (our way is the only way); *fundamentalism* (our way is the only *right* way); and *fanaticism* (our way is so right that everyone who disagrees with it should be either assimilated or eliminated). I coded Stage 2 as *ethnocentrism* (there are lots of other ways out there, but our way is best). The next two Stages represent more fluid types of thinking—Stage 3 related to *cultural relativism* (all ways are equal in value and validity, and individual behavior must be understood within its cultural context), and Stage 4 was related to *global humanism* (there must be higher, better ways that can support cultural integrity while also supporting the individual rights of each human being). (See Table 1.) The globally humanistic concept purports that all individuals have rights. This position is supported by various human rights documents as they relate to women's rights in childbirth.

Table 1. The Stages of Cognition and Their Anthropological Equivalents

Stages of Cognition	Anthropological Equivalents
Stage 4: Fluid, open thinking	**Global humanism**: All individuals have rights that should be honored, not violated
Stage 3: Relative, open thinking	**Cultural relativism**: All ways have value; individual behavior should be understood within its cultural context
Stage 2: Self- and culture-centered semi-closed thinking	**Ethnocentrism**: Other ways may be okay for others, but our way is best.
Stage 1: Rigid/concrete closed thinking, intolerance of other ways of thinking ——— **Substage**: Non-thinking; inability to process information, lack or loss of compassion for others	**Naïve realism**: Our way is the only way; **fundamentalism**: Our way is the only *right* way; **fanaticism**: Our way is so right that all other should be assimilated or exterminated. ——— **Cognitive regression**: Intense irritability, inability to cope, burnout, breakdown, hysteria, panic, "losing it," abusing or mistreating others

Here in Part 2 of this treatise, various types of birth practitioners are categorized within these four Stages, while showing how ongoing stress can cause even the most fluid of thinkers to shut down cognitively and

operate at a Stage 1 level that can involve obstetric violence—an example of further degeneration into Substage—a condition of cognitive regression, or "losing it." It is noted how ritual can help practitioners ground themselves at least at a Stage 1 level and offer ways in which they can rejuvenate and re-inspire themselves, and possibly move to Stage 4 practice. Also described are a few of the ongoing battles between fundamentalists and global humanists and the persecution that Stage 4 globally humanistic birth practitioners frequently experience from fundamentalist or fanatical Stage 1 practitioners and officials, often referred to as the "global witch hunt."

Birth Practitioners and the Four Stages of Cognition

Stages 1 and 2 Birth Knowledge Systems

Many traditional midwives, some professional midwives, many nurses, and most obstetricians are Stage 1 or 2 thinkers in terms of maternity care. Indigenous midwives, if left alone, are most likely to be Stage 1 thinkers, practicing as they were taught by their mentors or, as many of them say, "by God." Many indigenous or traditional midwives are highly skilled and carry on ancient birthing knowledge that is mostly functional and practical, such as eating, drinking, and moving about during labor, and using upright positions, including hands and knees for breech deliveries (Daviss & Bisits, 2020). Yet romanticization is inappropriate, as some of their practices—just like some technomedical practices—can be quite harmful, such as urging the laboring woman to push before her cervix is fully dilated or putting dung on the umbilical cord to seal and dry it. So, their Stage 1 systems are a mixed bag when viewed from an evidence-based perspective—much good, some harm.

Stage 1 naïve realist practitioners can work within their settings, whether community- or facility- based, for their lifetimes, without ever questioning their practices and the beliefs that underlie them, because they simply know no other way. But many OBs know that their practices are constantly scrutinized and criticized by the thousands of birth activists in many countries, by some of their patients, by the more humanistically-inclined midwives and nurses who may work with them, and by the doulas who increasingly attend to the support needs of the laboring women under their care. Often doulas, like humanistic midwives and nurses, suggest that their client should reject the TMTS ("too much too soon"—see Part 1 of this article for further explanation) treatment they are receiving—sometimes causing the doctors to resent them mightily.

Ethnocentric (there are other ways, but our way is best) obstetricians who feel themselves under siege in their practices have choices: (1) They can become curious to learn why their standard practices are so heavily critiqued, examine the evidence, listen to others, and ultimately choose to

grow beyond the limitations of their training and make a paradigm shift to the more fluid thinking that humanistic or holistic practice requires.[1] A few obstetricians do take this path, like Hakan Çoker of Turkey (see below) and others.[2] They can take refuge in their Stage 1 silos, developing a fundamentalist attitude and performing their rituals/standard procedures as they always have—choosing to ignore or discount the scientific evidence and the growing criticisms and efforts of others to force them to change. (3) They can go deeper into Stage 1, "circling the wagons," by becoming highly defensive, even fanatical, critiquing and imposing harsh punishments on their colleagues who "go rogue" or step out of the silo by humanizing their practices.

For example, in Brazil in 2012, a well-respected obstetric professor, Dr. Jorge Kuhn, during a nationally-broadcast TV interview, declared that he supported homebirth—as long as the birth was attended by a skilled professional and transport arrangements were in place. This statement was evidence-based (Anderson, Daviss, & Johnson, 2020), yet in an extremely fanatical overreaction, the medical council of Rio de Janeiro (CREMERJ) immediately called for his license to be revoked. These actions led to a major series of marches in the streets by women demanding the rights to homebirth, companionship during labor, etc. (Figure 1), to which CREMERJ, again fanatically, responded by forbidding *any* doctor to attend homebirths, causing all of Brazil's humanistic OBs to stop doing so—leaving homebirth attendance to the midwives, who are few in number in Brazil while OBs are many.

Figure 1. In 31 cities across Brazil, and one in Italy, thousands of people marched for the humanization of birth, for women's rights in childbirth, and in support of homebirth. Photo by a marcher, public domain.

Another example of this sort of fanatical medical backlash was Brazil's first forced cesarean section: on April 1, 2014, a woman named Adelir was denied permission while in labor in a hospital to attempt a vaginal birth after cesarean (VBAC), so she left to labor at home, but was forcibly transported back to the hospital for a court-ordered CS. She was deeply traumatized but took heart when birth activists all over the country adopted the globally humanistic Stage 4 slogan "We are all Adelir" (see Figure 2) and protested with thousands of letters and more marches. (Adelir later enrolled in a nurse-midwifery program so she could provide the kind of care she wished had been given to her.)

Figure 2. This drawing by Ana Muriel circulated across Brazil as thousands protested Adelir's forced cesarean. Used with permission of the artist.

Other examples of technomedical fanaticism at work include:

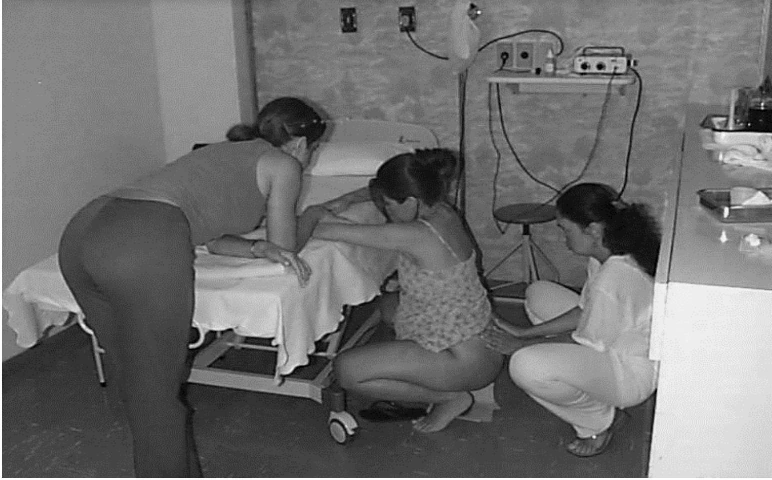
– Agnes Geréb of Hungary, an obstetrician and midwife, attended thousands of homebirths until she was arrested on trumped-up charges, put in prison for 77 days and then on house arrest for three years, then sentenced to two more years in prison. This was because the powerful Stage 1 OBs in Hungary hated her for rejecting their profession by becoming a midwife, attending homebirths and keeping the woman at the center. Finally, in 2018, the Hungarian President revoked her second prison sentence but also forbade her from practicing again for 10 years (she was 67 at that time). Her presidential pardon seems to have stemmed largely from the overwhelming flood of letters to the president from both individuals and major international organizations, showing the power of concerted activism to create change (Figure 3). "Agi" is now an

international heroine and inspiration to the birth community. (To read her story in her own words, see Geréb and Fábián, forthcoming.)

Figure 3. Protest sign "Free Geréb!" on the banks of the Danube, close to the Parliament on December 10, 2010, with permission of photographer István Csintalan.

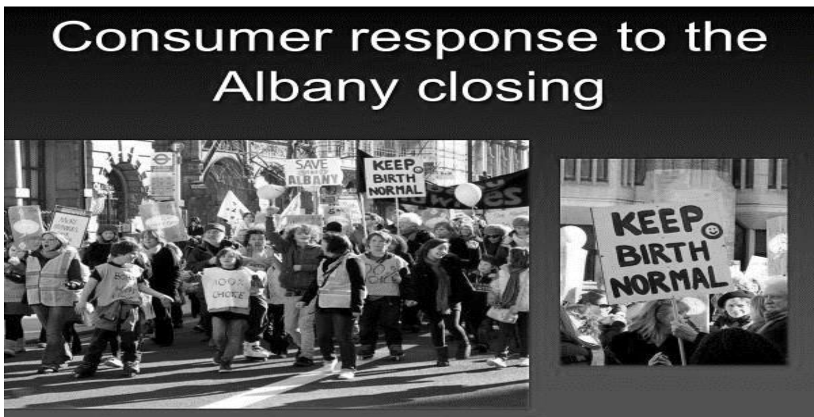
– Ricardo Jones is an OB who practiced both home- and hospital births for 34 years in a teamwork model with his wife Zeza and a group of doulas, with excellent outcomes (Jones, 2009). His license was revoked by the medical board of his region *six years after* their team attended a homebirth, following which the baby died a day later due to inappropriate NICU treatment after an appropriate hospital transport. This blaming was purely political—the Stage 1 doctors in Ric's region had been trying to get rid of him for years because of his unorthodox, Stage 4 humanistic practice (Figure 4). Again, global humanists like Ric, Agi, and Jorge Kuhn are anathema to Stage 1 fundamentalists and fanatics. (For Ric's lyrical description of his practice, see Jones, 2009, and for his final statistics, see Jones, 2019.)

Figure 4. Ric photographs a holistic hospital birth attended by his team. The midwife reassures the birthing woman while the doula massages her lower back. Note the physiologic squatting position, which helps with gravity and aids the pelvis to open much further than it would if she were flat on her back.



– The Albany Midwifery Practice by King's Hospital in London was closed after decades of being touted as one of the best midwifery practices in Europe. After reaching a 43% homebirth rate (in a country where the overall homebirth rate was around 2% at the time), they were suddenly shut down by their hospital in what many interpret as strong and fear-based overreaction to this high homebirth rate. Despite marches in the street and other forms of protest from their former clientele (Figure 5), they were never allowed to re-open. (For the story of how well the Albany practice worked, see Reed and Walton, 2009, and for their final statistical outcomes, see Reed and Walton, 2019.)

Figure 5. Photos of the March to Save the Albany. Photos by a marcher, used with permission.



Such examples reveal the power of a closed, fundamentalist, and sometimes fanatical obstetric system to eliminate "heretical" challenges to its ongoing hegemony. I could list hundreds of such cases, as such "witch hunts" of Stage 4 birth practitioners take place all over the world. This closed technocratic obstetric system, when fanatically applied as Stage 1, has ruined many of the lives of those who oppose it, and will likely seek to continue to do so for years to come as its hegemony is increasingly challenged, both by scientific research and by humanistic practitioners who put the woman, not the system, first.

Technocratic medicine in general is an extremely ethnocentric and relatively closed Stage 2 system, often degenerating into Stage 1 when challenged, as we have just seen. Its practitioners are constantly exposed to new information, yet *they tend to incorporate only the kinds of new information that fit within their pre-existing knowledge system.* Physicians, for example, are socialized into technomedical ways of thinking, knowing, and believing for at least four years of medical school, three years of residency, and often more if they go into subspecialties (Davis-Floyd, 1987, 2018). Obstetricians who read a study comparing epidurals with other types of pain medication can easily process that kind of information, for example, but the same obstetricians presented with multiple studies that demonstrate the benefits of doulas, being in water, massage, and constant changes in position for pain relief will be likely to discount this kind of out-of-the box information.

Most obstetricians can barely keep up with the information that comes across their desks every day that updates them on the latest drugs and technologies (simply amplifying things they already know). Entrenched in a belief system that relies on these interventions to "manage" birth, they see no reason to exert the much greater amounts of energy it would take to assimilate information from outside their technocratic paradigm. This is also true of thousands of professional midwives around the world who work hard to learn accepted biomedical ways and then are thrust into busy practices. Often overworked, overstressed, and underpaid, they too are unwilling to open their cognitive systems to processing information that contradicts the technocratic approaches they are taught. *Birth is not a good catalyst for change in such cases, as most babies come out alive and relatively healthy most of the time anyway* (though the negative psychological and physical effects on the mother and the baby of mistreatment during birth can be extreme). So, the more you attend births in your habitual ways, the more they become the only ways you can imagine doing it.

It is ironic that science, which was supposed to be the foundation of obstetrics, does not support most standard obstetrical practices. Yet "science" has been used by obstetricians for 150 years to justify the interventions they invented and then increasingly performed. *Science used ethnocentrically for Stage 1 or 2 technomedical thinkers is a blinder*

for what is really medical tradition, passed down from teacher to student through apprenticeship/experiential learning—the most powerful learning mode.

The metaphor of a busy office may illustrate the multiple possibilities such Stage 1 or 2 practitioners have for dealing with new information. If new information fits their dominant paradigm, it can flow along their established neural pathways and be assimilated. If it does not, it can be discarded as irrelevant nonsense and thrown in the metaphorical trash, or be filed way in the back of the brain, where the synaptic connections stop in a (metaphorical) filing cabinet labeled, "information I don't want to process right now but might be useful sometime." If it is so stored, the more it is accessed or added to, the wider the neural pathways leading to it become (imagine a footpath turning into a paved road)—and gradually, as that information is increasingly assimilated, behavioral change can occur.

Stage 3: Cultural Relativist Obstetric Knowledge Systems

Based on my 35 years of interviewing and working with hundreds of birth practitioners of all types, I have concluded that very few are true cultural relativists. They deal with life and death and know that their decisions can result in either one. Stage 1 (naïve realist, fundamentalist, fanatical) practitioners make decisions based on the only knowledge they have or believe to be right; Stage 2 (ethnocentric) practitioners make decisions based on the knowledge they are sure is best and to which they are habituated. But I can't think of one cultural relativist who bases his or her decisions on no standards at all just because he or she can't choose between the many viable care standards out there. Postpartum hemorrhages must be stopped if at all possible. Babies in transverse lie cannot be born unless the attendant does something (such as performing a cesarean, or alternatively reaching in and grabbing the feet to pull them down while sweeping up the arms so they will not stick in the birth canal—a skill few midwives, both traditional and professional, possess, while almost no doctors do). Pregnant women will die of eclampsia if they do not receive effective prenatal care.

Where cultural relativism can be helpful in birth is when respect for every culture encourages practitioners to become *culturally competent*[3] enough to generate *cultural safety*[4] for childbearers by understanding what, in fact, makes birthers feel safe: communicating with a laboring woman in her own language or having a translator present, honoring her cultural values with regard to modesty, for example, by refraining from exposing her genitals, allowing the presence of supportive members of her own family and/or community, treating her with dignity and respect instead of with racial or ethnic discrimination—all these can stem from a culturally relativistic approach.

Some practitioners use what I have called *informed relativism* (Davis-Floyd, Matsuoka, Horan, Ruder, & Everson, 2018) to help them pick and choose from the many options out there for mode of birth. They use scientific evidence as their baseline, as well as cultural relativism, to learn and employ birthing techniques and positions that originated in indigenous societies and turn out to be evidence-based, such as those mentioned above.

Stage 4: Global Humanist Birth Knowledge Systems

Stage 1 and 2 practitioners will deal with birth complications as their socialization dictates. But those with open minds and systems fluid enough to encompass multiple cultural realities will not be content to approach such complications in whatever way the culture of the woman they are attending or their own medical traditions would dictate if they have found or studied the evidence that those medical traditions do not work. If they know a way that is scientifically proven to have better efficacy than a traditional way (whether "traditional" in a technomedical or an indigenous sense), they will apply it. The decisions they make in life-crisis situations are not based on a "whatever the dominant model says" attitude, but rather on a "whatever works" attitude. And what birth attendants with open cognitive systems know about what works will constantly change as they are exposed to new information, whether it comes from science, traditional midwifery, a book they happened to read, or a workshop they just attended the day before.

For example, Turkish obstetrician Hakan Çoker changed his entire practice style after sneaking into a childbirth education workshop out of sheer curiosity, eventually developing a Stage 4 model called "Birth with No Regret" that, for the first time anywhere, includes a *birth psychologist* along with the midwife/doula and doctor (Çoker, Karabekir, & Varlık, 2020). The birth psychologist's responsibility is to process the emotions of the laboring woman and her family, as well as those of the OB and midwife, before, during, and after the birth, to ensure that the "psychosphere" (Jones, 2009) of the birth stays clean and clear and that no one regresses into Substage. This respectful, evidence-based and violence-free model has demonstrated such good outcomes that it is now rapidly spreading across Turkey and beginning to lower the country's high cesarean rates. Hopefully it will soon spread to other nations as well, demonstrating that positive change is truly possible.

In today's rapidly changing and highly fluid world, to be truly effective, practitioners must remain open to the new information that is constantly emerging from real science and from the increasing availability of birth knowledge from multiple systems—allopathic, indigenous, holistic, and integrative. Sometimes the best option for a birth complication might be emotional support or a homeopathic remedy;

sometimes it might be a position used by traditional midwives; sometimes it might be a cesarean section. The Stage 4 practitioner will keep her system open to new learning from many sources in a highly postmodern way; she will practice informed relativism, and will base her Stage 4 practice on viable scientific evidence and on the highest moral and ethical standards, which involve giving compassionate, woman-centered care responsive to the needs of the individual and honoring her human rights, regardless of what the Stage 1 system dictates. She will likely suffer persecution from her Stage 1 colleagues, yet will find support from other Stage 4 practitioners, from her clients, and from those who work with her and appreciate her globally-humanistic, rights-based model.

Why Many Birth Attendants Do Not Give Stage 4 Care, or Give Up Trying to Provide It: Stress, Tunnel Vision, and "Substage"

Cognitive openness and humane standards are not easy to maintain, especially in a busy and stressful practice. Even those Stage 4 practitioners who want to remain open to new learning and new ways of thinking find that the more stress they are under, the less able and willing they are to process new information. *Persistent stress can reduce even highly fluid, Stage 4 thinkers to Stage 1 levels* by causing cognitive overload and the development of "tunnel vision"—the need to shut out most stimuli and focus on one thing only. In other words, stress can make fluid thinkers become rigid, if only for a while. How often have you thought, on an especially stressful day, "I can't deal with any more information—just don't tell me one more thing"? Usually rest or a vacation will restore Stage 4 thinkers to their normal fluid state. But if the stress continues for too long or becomes too intense, anyone can disintegrate into *Substage*—intense irritability, anxiety, burnout, breakdown, hysteria, panic—also known as "losing it." In Substage—whether in its milder or more devastating forms—it is very hard to feel compassion for others and very easy to abuse them.

Performing rituals can stabilize individuals under stress at Stage 1, thereby preventing them from degenerating into Substage. When the crops fail, you make offerings to the gods. When your life seems to be falling apart, you might return to the church of your childhood to recover some sense of stability. When labor slows, you administer Pitocin. When fetal heart tones drop, you rush to perform a cesarean. Stage 1 rituals can generate a sense that everything is under control (even if it isn't). Practitioners facing what they see as constant potential crises in childbirth use such Stage 1 TMTS rituals and standard procedures preventatively, so that things at least feel or seem to be under control.

Let's take a quick look at what women studied by anthropologists all over the world have said about professional nurses, midwives, and doctors working under high levels of stress, especially in low-resource countries:

"They shave you."
"They cut you."
"They leave you alone."
"They don't let your family members in to be with you."
"They give you nothing to eat or drink, even if you are hungry or thirsty."
"They yell at you and sometimes, they slap you."[3]

Perhaps most practitioners who work in these ways at first approached nursing, midwifery, or obstetrics with high ideals of serving women. But if you are practicing in a rural clinic in Papua New Guinea (see Byford, 1999) or a huge hospital in India, where supplies are limited or nonexistent, there are more women than you can possibly care for, there is often no running water or electricity, and little or no food available for the women, you are treated as inferior by your superiors and nastily by those under you who resent your authority, and you are paid so little you can barely support your family, it is most likely that your ideals will fade away in face of unbearable realities. You may well shut down cognitively and focus on finding any bits of pleasure or relaxation you can, choosing to drink coffee with your colleagues and ignore the women supposedly under your care—and/or abuse them physically or emotionally. Such are the effects of stress, overwork, underpay, and professional devaluation.

Many anthropologists have noted that practitioners new to work in such places are often initially horrified by the behavior of their elders and work harder to support and care for the women, yet a few months or years later, will be behaving exactly like the colleagues whose behavior they initially abhorred. It is important to emphasize that *ongoing stress can lower one's cognitive level from Stage 4 to Stage 1—a conceptual space in which you don't have to think—you just go on "automatic pilot."* And the more stress you are under, the harder it becomes to "think beyond" and the more likely you are to slip into Substage—burning out, "losing it," and taking out your stress on laboring women or your underlings in the facility hierarchy—long identified as *structural violence* (Galtung, 1969).

What about practitioners in high-resource countries, where technology, supplies, clean water, and food are readily available, the pay is reasonable, and schedules offer sufficient time off? Indeed, it is this kind of practitioner who is most likely to care about moving beyond rigid knowledge systems to create a more open, fluid, and individually responsive style of care. And yet even professionals in high-resource countries are likely to succumb to the pressures of technomedical socialization and habituation to certain routines, to practice defensively to avoid accusations of malpractice, to conform to institutional systems rather than take the time and energy to try to change them, because it's just easier that way. I had long talks with a group of nurse-midwives in Ohio who practiced in a hospital so heavily medicalized that they had

given up trying to practice the midwifery model of care and claimed for themselves the derogatory term "medwives." They said they had "burned out" on trying to change the system and contented themselves by simply being as nice to the women as they could while they routinely applied interventions during labor and birth, even when they knew this TMTS practice was not needed. To make their work easier, they had consciously chosen to practice at Stage 1, with a dash of humanism to leaven the technocratic bread. Their choice is not unusual; fighting the system is very, very hard, especially on a daily basis.

Habituation to Closed Systems

Again, I note that the most effective, enduring learning is embedded in our bodies. When you sit in a classroom and listen to lectures, or read books, you are learning didactically, through your mind. When you take a blood pressure reading, insert an IV, or do a pelvic exam the same way a thousand times, you are learning experientially, with your body. Body knowing is the hardest kind to change because it involves *habituation.* Becoming physically habituated means that your learning process becomes ingrained not only in your brain, but also in the cells and muscles of your hands and arms, legs and feet, posture, and movement. This kind of knowing is unconscious, and thus, can rarely be overcome by purely didactic exposure to studies that contradict it.

How do you gain confidence that a woman's labor is under control? You hook her up to a monitor. How do you resuscitate a baby in distress? You cut the cord and rush to the table attached to the wall where the equipment you think you need is attached. How do you deal with what you have been taught is "prolonged pushing"? You cut an episiotomy and perhaps grab the forceps or the vacuum extractor. You don't have to think about it—your body just moves to perform the (heavily symbolic) rituals to which it is accustomed. The more often you perform in that particular way, the more it becomes the only way you can imagine. You are socialized into the ritual performance of what can easily turn into a "cascade of interventions," also identified as the *obstetric paradox* (Cheyney & Davis-Floyd, 2019): "the conundrum that intervening in birth to make it safer and more controllable actually may make it more dangerous, as the interventions themselves often cause harm and lead to a baby in distress from TMTS, culminating in the ultimate ritual performance in birth—the cesarean section" (p. 7).

Many doctors have told me that they feel "like God" when they pull the baby out. And more have told me that they fear birth because they, like all long-time obstetricians, have lost a baby (or, far more rarely, a mother) at some time. (Out of every 1000 births, at least two babies will die, no matter where, no matter what.) Like all peoples everywhere, in my experience, OBs *almost never* blame such deaths on the performance

of too many rituals/standard procedures; rather, they *almost always* believe that if they had only done the ultimate ritual—the CS—sooner, this disaster would not have happened. This is the common human response to the failure of rituals—to blame oneself or one's group for not doing the rituals right or rapidly enough, and thus to intensify ritual performance (Davis-Floyd & Laughlin, 2016).

How Midwives and Obstetricians Can Foster Stage 4 Thinking

1. *Attendance at midwifery conferences*. Again, to move from technocratic to humanistic or holistic practice (from Stage 1 to Stage 4) requires a tremendous amount of new learning, which requires a great deal of time, attention, and energy. At conferences, practitioners are free to put in that time and energy to develop new neural networks to assimilate new information. Midwives who tend to become rigid in their practices rarely attend such conferences; they are the ones who most need to attend if they are ever to become more open and fluid in their thinking. And while this may sound like a strange recommendation for obstetricians, all of the humanistic and holistic OBs I have interviewed have done exactly that, attended midwifery, not only obstetric, conferences. At obstetric conferences, doctors tend to learn more of what they already know—their technocratic belief system is not challenged as it would be at a midwifery conference where "the midwifery model of care" with its woman-centered focus and its many accompanying hands-on skills is taught and demonstrated in lectures and workshops.

When OBs show up at midwifery conferences, they generally receive a great deal of support from the midwives they meet for their efforts to learn and change. And if they have already learned and changed, they get to present the RART ("the right amount at the right time") or JOT ("just enough on time"—see Part 1 of this article) practice models they have developed and receive feedback on them that can help to make them better. I have witnessed even humanistic OBs go into shock when they hear about midwives' techniques for vaginal breech births (Daviss & Bisits, 2020), external versions (Davis-Floyd et al., 2018, p. 235-237), stopping hemorrhages without Pitocin (Falcon & Contreras, 2009), and rather than scorn the midwives as "crazy" or "irresponsible," they huddle up with them to learn these techniques themselves.

I have attended hundreds of midwifery conferences and have watched how both midwives and the few OBs who attend "get their juice" by being there. Midwifery Today conferences are particularly salient in developing and maintaining Stage 4 thinking in midwifery or obstetric practice. Jan Tritten, their organizer, makes every effort to include all types of midwives—professional, traditional, nurse, direct-entry—on her programs, as well as some holistic OBs from various countries, so that every Midwifery Today conference provides opportunities for attendees to

be exposed to the ways others think and know. In the US, the annual conferences held by the American College of Nurse-Midwives (ACNM) and the Midwives Alliance of North America (MANA) also provide many such opportunities. Their conferences include workshops that range from the highly technical to the highly holistic, as do the sessions at the Normal Labor and Birth Research Conference, which moves among countries on an annual basis.

Particularly exciting are conferences held in countries where midwives and obstetricians are actively seeking to move outside normative practices, such as the annual *Siaparto* and the triennial ReHuNa conferences in Brazil. The triennial congresses held by the International Confederation of Midwives (ICM) bring together professional midwives from all over the world, and every time slot on the program offers at least a dozen sessions appealing to every possible type of midwifery knowledge, skill, special interest, or cultural approach. Small-scale regional midwifery conferences allow practitioners living in relatively close proximity to share common interests and expand their knowledge bases about their own history and political situations. Every midwifery conference I have ever attended has offered its participants many ways to think beyond established paradigms and practices; thus I encourage every practicing and student midwife, maternity care nurse, doula, and obstetrician to attend such conferences—including childbirth education, doula, and birth psychology conferences held by the Association for Pre- and Perinatal Psychology and Health (APPPAH). I also encourage social science students interested in such topics to attend them as well—they are rich sites for intensive fieldwork.

2. *Learning from women*. Every woman a practitioner attends can bring something new to her knowledge and practice. I have often been struck by the changes in practice that can result from listening carefully to, and learning from, even one woman who perhaps is unusual but can teach the practitioner something new about how best to provide woman-centered care.

3. *Learning from midwives*. The birth stories OBs tell usually focus on pathologies that they find intrinsically interesting because of the intellectual puzzles they present, or crises in which they saved or failed to save a life. In dramatic contrast, midwives tend to tell stories of normal birth, or of how they figured out how to help a birth that could have become pathological stay normal—a process I call *normalizing uniqueness* (Davis-Floyd & Davis, 1996/2018). Much midwifery lore and knowledge are encoded in these stories. If you want to understand the normal physiology of birth in its wide variations, listen to them, record them, write books and articles full of them so that others can learn what your stories have to teach.

Also, read the ones already written—they include Ina May Gaskin's *Spiritual Midwifery (1975/2002)*, *Ina May's Guide to Childbirth* (2003, the first half of which is full of wonderful stories), and *Birth Matters*

(2011); Penfield Chester's *Sisters on a Journey: Portraits of American Midwives* (1997)*;* Geradine Simkins' *Into These Hands: Wisdom from Midwives* (2011)*; A Midwife's Tale: The Life of Martha Ballard Based on Her Diary 1785-1812* (1991) by Laurel Thatcher Ulrich; Sister Morningstar's *The Power of Women* (2009)*;* Carol Leonard's *Lady's Hands, Lion's Heart: A Midwife's Saga* (2010)*;* Eleanor Barrington's *Midwifery Is Catching: The Classic Work in This Area* (1985)*; Diary of a Midwife: The Power of Positive Childbearing* (1998) by Juliana van Olphen-Fehr; Jennifer Worth's famous *Call the Midwife* (2003), on which the popular TV series is based, and many others, most of which can be found listed in an annotated bibliography I and others have created and which is available on the website of the Council on Anthropology and Reproduction (CAR) at http://car.medanthro.net/specialhighlights/. These include a whole raft of books telling the stories of revered "Black granny midwives" like Gladys Milton and Margaret Charles Smith, many of whom attended births in the American South at a time when black women were not admitted to hospitals so they had to deal with any complications that arose as best they could, developing many skills as they went along.

4. *Attention to the scientific evidence*. The body of scientific evidence supporting many traditional and professional midwifery practices that facilitate normal, physiologic birth is ever-growing and now includes meta-analyses from the renowned Cochrane Reviews, the *Lancet (2014)* series on midwifery, and research articles using data from two of the largest databases on midwife-led, normal physiologic birth in the United States—the MANA Statistics Project and the Perinatal Data Registry.[6] Every birth attendant should keep up with this evidence, as so much of it reinforces the midwifery model of care.[7] Real science differs fundamentally from biomedical tradition and radically challenges it. Every Stage 4 practitioner should have science at his or her command, with all references ready to counteract every technomedical objection to the kind of care s/he wishes to give.

5. *Attention to other healing philosophies and modalities*. Naturopathy, chiropractic, homeopathy, Reiki, breath therapy, massage therapy, pre- and perinatal psychology, Ayurveda, Chinese medicine, and many other types of "complementary," "holistic," or "functional" health care, as well as many indigenous knowledge systems, have much to offer the contemporary birth practitioner. It is not possible for everyone to know all of these systems, but it is possible to be open to what they can offer by learning about them and incorporating one or some of them, and finding practitioners to whom clients can be referred. For example, some chiropractors and osteopaths are experts in positioning the baby properly for birth, and/or in healing, or correcting post-birth, injuries or traumas to the baby's neck or spine. Some psychologists are also experts in helping women to release their pre-birth fears, to psychically connect with their

unborn babies, and to heal post-birth trauma (see the APPPAH website: https://birthpsychology.com/).

Conclusion

Rigid Versus Fluid Ways of Thinking and the 4 Stages of Cognition

To recap, in Parts 1 and 2 of this article, I have made a clear distinction between rigid and fluid ways of thinking, named 4 Stages of Cognition originally explicated by others, and correlated them with what I suggest are their anthropological equivalents. Stage 1 (rigid, concrete) thinking incorporates *naïve realism* (our way is the only way because we know no other way), *fundamentalism* (our way is the only right way), and *fanaticism* (our way is so right that those who do not adhere to it should be either assimilated or eliminated). I equated Stage 2 thinking to *ethnocentrism* (our way is best). I correlated Stage 3 thinking with *cultural relativism*—a very fluid way of thinking (all ways are equal in relative value and individual behavior must be understood within its cultural context), yet one that offers no way of thinking above and beyond the limitations of "culture" in general. Thus I went on to correlate Stage 4 fluid thinking with *global humanism*—while respecting each culture, we must seek and establish standards that put the human rights of each individual above cultural mores and traditions that dishonor such rights. I mentioned how embodied and experienced rituals can be employed to reinforce these ways of thinking, and to reduce many kinds of stress by solidly grounding individuals in their belief system and worldview, giving them a sense of safety and stability in an uncertain world, and keeping them from "losing it" by regressing into Substage, or helping to bring them back into functionality by getting them out of Substage. Ritual can also be employed to effect change: *to change your paradigm, change your rituals* to those that enact the core value and belief system you wish to adopt.

Around the world, midwives and humanistic and holistic OBs are under siege as the power of technomedicine grows. Traditional midwives in many countries are in danger of extinction, having already been pushed out of practice or simply died off; professional midwives are too often either naïve or ethnocentric servants to technomedical ways of knowing and practicing; and many practitioners, including obstetricians, who reject those ways are often persecuted and punished by fundamentalist and fanatic protectors of the technocratic obstetric silo. Yet in most countries, there are dozens and sometimes hundreds of birth practitioners, both traditional and professional, who are Stage 4 global humanists striving to think beyond established paradigms and practices.

Such practitioners, when not under too much stress, are practicing informed relativism. They are constantly working to combine the best of premodern indigenous techniques, modern allopathic, and

complementary/holistic/integrative knowledge systems to create fluid and open postmodern birth knowledge systems. These systems are responsive to women's needs and desires, to ideas and information from other health care workers, to scientific evidence, and to "whatever works" from wherever it can be learned in globally humanistic ways that honor individual human rights. They reject birth management that is TMTS (too much too soon) and/or TLTL (too little too late) (see Part 1) in favor of RART (the right amount at the right time) or JOT (just enough on time) maternity care.

If you are practicing in the 21st century, you have two brand new advantages that your historical counterparts did not: (1) access to information from a rich variety of sources, including indigenous knowledge that has been documented by social scientists (Daviss, 2020; Daviss & Bisits, 2020) or sometimes by traditional midwives themselves (Falcon & Contreras, 2009) and solid science, such as the Cochrane meta-analyses; and (2) strength in local, national, and international organizations. If you are a birth practitioner or a student, I ask you to utilize these strengths, acknowledge your limitations (remember that stress can take you "down," while spiritual, emotional, and bodily nourishment can bring you up), and strive to keep your knowledge system open to the rich learning that this new and digitally-interconnected world can provide.

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Notes

1. See Davis-Floyd (2001; 2018) for a full explication of the technocratic, humanistic, and holistic models of birth.
2. These humanistic and holistic OBs include the Stage 4 self-named and woman-centered "good guys and girls" of Brazil, who usually work with midwives and often have CS rates of around 15%. Their

paradigm shifts and resultant Stage 4 practices are described in Davis-Floyd & Georges (2018).

3. Cultural competence can be defined as "the level of knowledge-based skills required to provide effective clinical care to patients from a particular ethnic or racial group" (https://en.wikipedia.org/wiki/Intercultural_competence).
4. Cultural safety, a concept developed in New Zealand for the indigenous Maori, yet that is applicable globally, "is about providing quality service that fits within the cultural values and norms of the person accessing the service that may differ from your own and/or the dominant culture" (http://vaccho.org.au/educational/cs/) in order to make patients feel safe in facilities and with their care providers. For a richer description, see Georges & Daellenbach (2019).
5. The anthropological studies I draw on are too many to be listed here. Many can be found in my book *Ways of Knowing about Birth: Mothers, Midwives, Medicine, and Birth Activism* (Davis-Floyd & Colleagues, 2018).
6. See for examples Bovbjerg, Cheyney, Cox, & Leeman, 2016; Bovbjerg, Cheyney, & Everson, 2016; Cheyney et al., 2014a; 2014b; Cox, Bovbjerg, Cheyney, & Leeman, 2015; Olsen & Clausen, 2012; Stapleton, Osborne, & Iluzzi, 2013, and for the Perinatal Data Registry, see https://www.birthcenters.org/page/PDR.
7. See Rooks, 1999, and Davis-Floyd, 2018 for full descriptions of this model.

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