I was a first time mother-to-be, nearing 40. I’d already had two miscarriages and I wasn’t getting any younger and I could go on and on about the reasons that I was stressed. It didn’t help that I was banned from a nice glass of chilled, white wine at night. And most foods that used to delight me, didn’t. Meanwhile, I was traveling a lot for my documentary, called In Utero, about the environmental impact on pregnancy. I was one of those women who believed I could do it all and somehow stay in control — ha!

The funny thing about stress is there’s no easy fix. You’ve got to rewire your thinking — perhaps even turn off your thinking — in order to find that island of calm. During my research for In Utero, I came across a lot of studies that didn’t exactly help with the stress, but it did introduce me to a vast store of expanding knowledge — and with it came hope.

I interviewed Dr. Moriah Thomason, a professor in the Department of Pediatrics and in the Merrill Palmer Skillman Institute for Child and Family Development at Wayne State University. Her lab uses novel methods for detecting and characterizing large-scale human brain networks.

While using safe MRI technology to scan the brains of developing fetuses, she and her team discovered something quite staggering. We tend to think of the brain as forming in the way a building is constructed — sturdy foundations are laid first, then we build up and up, level by level. Later we add the nuances.
It seems that the human brain develops differently. We would assume that the more mechanical aspects of the brain are formed first – those hardy building blocks. But Thomason’s team discovered that the emotional and abstract thinking aspects come on line at the very earliest stages. Then, the more primal elements form. This runs totally counter to our Newtonian way of thinking. This is quantum.

Does it mean that from nearly the beginning my little boy inside was absorbing my anxious emotional states and – to some degree – feeling them? Science suggests the answer is yes, because when you look at the chemicals coursing through our bodies as we experience stress, joy, sadness, or fear – mixtures of cortisol and oxytocin – those same chemicals (i.e., feelings) are moving though the placenta into the fetus.

My husband likes to quote Dr. Gabor Maté, another eloquent expert in our film: “Every emotion has a chemical correlate.” He repeats it over and over, like a mantra. What’s essential about this idea is that it marries mind and body. Too often we think they’re separate. We think we can think our way out of everything. But our neurological foundation is emotion-based. Which would suggest that we might thrive as a species if we learned how to feel our way through life.

At just about the same time that we interviewed Dr. Maté in Vancouver, we also met with a small coterie of prenatal attunement experts up in Seattle. They, along with a handful of practitioners in Illinois, had been trained in Bindungsanalyse (“bonding analysis”), a method created by Dr. Jenő Raffai, a Hungarian psychologist, and taught by Dr. Gerhard Schrotth, a German psychiatrist. Their translation of Bindungsanalyse is “Prenatal Bonding.”

(If you’re pregnant and reading this, I’d take a look at this introduction to
Prenatal Bonding. At the very least, it'll be interesting reading.)

Prenatal bonding sessions begin with a deep relaxation process, which enables the pregnant woman to clear her mind and connect with her body. Then, she asks her uterus for permission to access the baby. Over time, a flow of communication through mental images and spoken words is established between mother and baby, allowing for a bonding/attunement that they believe nurtures the unborn child. We interviewed Amy Hale, a behavioral neuroscientist and new mom who had done prenatal bonding. Though she was skeptical, she discovered to her surprise that the experience revealed how her stress directly affected her baby. The sessions helped her mitigate that stress and connect with her baby.

There is a hard, intellectual side of me that finds all of this quite silly and new-agey. But there's a warmer, instinctual side of me that finds it beautiful.

So, 20 weeks into my pregnancy, I gave it a try, figuring at the very least it would be research for the documentary. I set aside an hour a week to “go inside”. Luke and I didn’t have conversations, exactly, but I did work on telling the little guy over and over how much I loved him and that he could be whoever he wanted to be and that the stress I was going through had nothing to do with him. It was just my baggage. In each of these hours of “prenatal bonding” I grew calmer and more content. And since we know “every emotion has a chemical correlate,” I am positing that my little boy grew calmer and more content too.

So, prenatal bonding is about closing the mind, opening the heart and the body, and leaving behind stress. All so you can attune with your growing child. And this approach applies to early childhood, too. In fact, it applies to all the parenting you’ll do for the rest of your life.

Did my introspection pay off? Did I really attune with Luke while he was in utero? Only time will tell, and even then there will be many questions left unanswered. But the point is, science suggests that talking out loud (or just directing our inner thoughts, feelings and hopes) to our expanding bellies may well have a profound effect on fetal development both physiologically and psychologically.

You've got to start somewhere, even if it does seem unorthodox. We are, after all, talking about our children, and they are the future. So, whatever you can do to stop the stress, do it. No matter how peculiar it may seem.
It's a beautiful and a very interesting article like all your documentary, in Utero, I saw along with Dr. Domenico Arturo Nesci, an italian psychiatrist and psychoanalist. I'm a pregnant, and from the first days of pregnancy with my husband we tried to avoid all sources of stress, or nearly. We cut out some time to tune we the baby. We talk a lot of him, let him hear the music, I try to feel every single movement and to share my emotions with my husband not to make him abandoned. Thanks for this article, I will continue to follow your blog.

This message that mothers can start attuning emotionally to their babies in Utero is a phenomenal discovery. I used a similar prenatal bonding ritual using hypnobirthing CDs and books by Marie Mongan. Amazing results for me and my babies. It helped create a feeling of unconditional love and security, it minimized my feelings of fear and worry.

Tuning inward is so important it seems for everyone's quality of life. This is a very encouraging article that focuses in on the relationship and the interdependency of the quality of the child-parent bond starting so early.

We have long known about the effect of stress on the body, the role cortisol plays in the body's response to stress, and the evidence is there that stress affects us physically, mentally, and emotionally. It stands to reason that stress in utero has a tremendous affect on the developing fetus's overall response to stress and the development of coping mechanisms and stress reactivity. Imagine what changes we might see in school age children who were raised in stress-reduced environments, who had the added benefit of their mothers talking to them and reassuring them during stressful times. Anyone looking for an interesting longitudinal study would do well to look into this area. Thank you, Kathleen, for bringing such valuable information into the world. As a therapist, I believe this could have a huge impact on improving mental health, beginning in the womb!

As you conclude, 'who knows' the impacts this can bring to the developing fetus and afterwards. Yet, what it does generate is self-awareness. By talking aloud, we bring to light those "boogie monsters" that lurk under the bed. In naming our emotional responses, we meet these "monsters" and say 'Hey, I'd like to get to know you better." This will have a direct impact on our personal state of being, which will directly impact ALL of those around us...particularly admist the challenges of parenting. Thank you for your warmth and collective contribution to this important dialogue.