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Life Before Birth: A Thematic Analysis of Memories of Coming into Life Part 2: Recollections of Fetal Life and Birth

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This article examines a second set of data produced in a thematic analysis of 68 "earliest memory" narratives submitted to an independent website to explore the question: what do people who claim to remember how they came into the world say about their experience prior to and including birth? Part 1 examined the first and largest subset of the data, narratives of an otherworldly existence consistent with Western reincarnation intermission stage 2 experiences, near-death experience accounts and mythic traditions. This article thematically analyzes descriptions of life in the womb, birth, and apparently veridical out-of-body and other paranormal impressions of events surrounding birth, congruent with pre- and peri-natal psychology, especially early trauma. Surfacing and resolving such early memories may have greater potential for healing than treating later life events.

Keywords: prenatal consciousness, fetal memory, birth memory, near-death experience, out-of-body experience, prenatal psychology, birth trauma

his article continues the thematic analysis of 68 narratives of people's earliest memories contributed to Jeffrey and Jody Long's PreBirth Experiences page on their Out of Body Experience Research Foundation website (https:// www.oberf.org/prebirth.htm), presented in Part 1 (Wade, 2022; this issue) to explore the question: what do people who claim to remember how they came into the world say about their experience prior to and including birth? The first portion of the analysis focused on memories that began with some type of otherworldly experience, whereas this article analyzes the very different texts concerning experiences of incarnate life, such as visions of the future parents, experiences in the womb, birth, and the events immediately surrounding birth. The literature review on prenatal sentience and memory, description of the study design and methodology, and sample demographics were presented in Part 1, and for length constraints are not repeated here.

Part 2 begins with the results from the subset of all 68 participants who mentioned experiences of incarnate life, with the focus on records that began with earthly existence rather than elsewhere. A few people whose records started in the otherworldly realm described being

in the womb or a sudden change in location to hospital surroundings without much detail. Their records are reflected in the frequency counts in this article, but for the most part the data come from respondents whose memories are primarily focused on events in incarnate life. Frequency percentages are for the total sample of 68 records and are broken out by sex.

Although some participants in the Part 1 otherworldly realm sample stated that they were in a dark, living expanse, their texts indicated that they considered that place an unearthly dimension, not the womb, and some records contained both of those places. Only self-reported intrauterine accounts are included here. Similarly, the researcher made no interpretation of descriptions of a tunnel-like mechanism transitioning people from the otherworld to earthly existence as the birth canal unless a respondent identified it as such. Five texts were eliminated as too ambiguous to identify the nature of the place was described. Thus, the results below involve the material world, but they come from two distinct vantage points, one in the body and the other from an out-of-body perspective describing what purport to be actual events. The embodied accounts are discussed first.

Embodied Memories of Fetal Life and Birth

Fourteen participants (21%; 6F, 8M) described being in the womb at some point in their narratives. Robin said it was a "warm friendly nurturing place," and Chandler likened it to being in a sensory deprivation tank, floating comfortably in a dark, warm place with a free and open mind. Derrick said it was dark red or black most of the time, but orange and yellow when his mother came into a brightly lit environment with "red veins" from the amniotic sac. He was disturbed by loud conversations of many people talking at once (his mother worked in a restaurant while she was pregnant):

I would get rudely woke up ... loud noises such as ... hearing people talk around me. I ... remember kicking ... over and over just constantly until I felt better I mostly remember tasting chocolate somehow. I later found out that my mother while pregnant with me loved to eat chocolate cake doughnuts. (Derrick)

The assumption of a body for people who remembered being in the otherworldly place where bodies, if they existed at all, did not seem to be substantial, was unpleasant even if the womb was comfortable. Mae said, "I feel stuck. I feel suddenly big, unwieldy, sticky, fleshy. But super cozy ... so comfortable, like a warm bed." Spencer and Angela, who both had opposed incarnation, found that being in the womb was not too bad at first.

I was seemingly back in the dark, warm place of comfort I had just left. I remember thinking that coming back to Earth was just a bad dream and that I was still safely snuggled up in the womb of God

My relief was short lived however because actually I was dozing inside of my physical mother's womb (which is almost a replica experience of the [otherworldly] darkness) and soon the sounds from outside and the atmosphere of excitement (on the part of others not me) confirmed my worst fears. (Spencer)

It [being in the womb] felt to me the same way as when I was resting in heaven ... comfortable,

secure, relieved and just basking in the rest. I could also feel her [mother's] love I became very comfortable there but was still aware that it was temporary My apprehension grew as I grew in her tummy. It became harder and harder to get comfortable and it was growing tighter with less room to move And then, the urge to get out was within me I could no longer live in that environment I remember moving around until I got into a good position and began to move. (Angela)

References to birth *per se* occurred in only 25 accounts (37%; 14F; 11M), and these tended to be highly glossed (9, 13%; 6F, 3M) or rapid transitions rather than a process. For example, Greta came into the world in a flash: "Boom! I'm in body. I'm going through birth canal ... I'm born ... I feel bright lights." For Yvoria, everything became dark, and "I remember this aching pain everywhere" Bill D described more of the transition than most:

I did not know I was in a womb. However, I do remember kicking once or twice, and I knew somehow someone could feel my kicks

Next thing I remember is getting born. It was not of the best experiences as what you feel is the lack of oxygen initially and that you have to start breathing. Taking a breath felt so wrong and tedious. I remember ... those white scales ... that are so cold. (Bill D)

Of accounts containing details about birth (11, 16%; 6F, 5M), only two described normal births, provided for contrast with what follows.

When I finally made it out, the lights were so bright, I remember feeling really cold and so heavy and thinking, I don't like this and crying. I felt so heavy and could not operate the body I was in. It scared me. It felt uncomfortable. I was exhausted. (Angela)

A cold sensation, some pain kind of like a headache, and blinding light He [the doctor] looks funny because he is wearing glasses and a mask. I would have laughed if I could have, but the light is too bright and makes me cry (I think?). The doctor talks with my parents. It is all

incoherent. Everything sounds like fuzz to my ears. (James)

The other nine reported their subjective experience of birth along with medical details gleaned later from the family or healthcare providers. Mae felt "stuck" and that "they" were trying to get her out of her cozy dark place.

Next I know there is a bright, ugly light and I am being yanked into it. I hear my mother's voice, I know I am being carried away from her. I remember ... a desperate need to connect with her, to be back inside her body

I was born cesarean after a very long labor. (Mae)

Spencer was still desperately resisting incarnation:

Another wave of resentment came over me as a blast of unimaginable cold, and harsh artificial light hit my face. At this point the shock basically cut all thought and I became, for all intents and purposes, a human baby complete with memory wipe and material needs.

My mother told me that ... I had gotten myself into an unfortunate upright and cross legged position that made it extremely difficult for doctors to deliver me in the normal manner, or even by cesarean section ... doctors told her that I was the most difficult to deliver baby they had ever come across and ... she felt me resist my birth. (Spencer)

Marvin, whose memories surfaced during a Reiki session, was flashing between his adult awareness of lying on a treatment table and his somatic experience of being delivered:

The pressure in my head became so intense I felt I could no longer stand it. Just about then, my body began to contort as if pulled by some invisible force. My left arm was pulled up and then stretched out painfully. I felt my left shoulder being dislocated. Then I felt a real sense of panic as I felt myself stuck somehow

I could feel my jaw being pushed to one side and the terrible intensity of my head being

crushed as my neck was being stretched. These distortions and contortions were taking place in my physical body [in the Reiki session] while I was also experiencing the associated feelings within this other world

Language entirely left me and all which remained was emotion and feeling. I could make sound, but the sound was not one I understood. Then I found that I could cry, but it was not a normal cry. The sound I heard was that of a newborn baby.

Hearing myself make that sound I realized I had just re-experienced the traumatic events of my birth

During the course of this experience I was able to learn things about my birth which were unknown to me. Later I was able to learn from my parents that my birth had been especially difficult I had become lodged in the birth canal and was pulled free by my left arm, the [doctor] then subsequently using something called a high forceps delivery. This apparently caused significant bruising to my face and head. (Marvin)

Derrick, delivered cesarean more than two months prematurely because his mother was very ill, felt a "burning pain" that was either "cutting the umbilical cord or when they were performing circumcision." He was hospitalized for a long time because his heart and lungs were so underdeveloped that he would likely need open-heart surgery to survive. He recollected being in a room with other incubators and fidgeting with the tubes and wires he was connected to, but most painful was some kind of ocular procedure:

I remember being taken into a dark room and having them place some sort of clips on my eyes to keep them open and ... seeing some sort of chart being lit up I remember most of all ... the fear and the pain I felt, because even though I kept hearing kind voices ... just the fact I had these strange clip things over my eyes was a very uncomfortable and strange experience. And as far as I know from discussing this with my parents these memories do indeed check

out so it gives me pretty much certain proof that I was indeed able to remember (Derrick)

(Physician Jeffrey Long annotated Derrick's account as "medically plausible.")

Other participants also almost died, such as Louise L, whose neck was broken (multiple fractures of the second cervical vertebra) during an induced labor with forceps delivery. Lacking reflexes, she was technically born dead, and to this day bears deep furrows in her skull from the forceps. Christine, whose recollection surfaced later in life, recognized what seemed to be a life-threatening perinatal event in a dream when she was 15 and again 7-8 years later when she was receiving Reiki for an injury. She dreamed she was swimming at a beach and was "pulled under by an undertow" and began to drown.

In the dream it was sheer panic, with my screaming (in my head) "I can't breathe! I can't breathe!" I was tumbling and fighting frantically until everything slowed down and there was this slow motion dialogue that went from "I can't breathe" to "I don't need to breathe."

Everything got slow and was quiet as I started to float instead of fight. I then saw something coming towards me from afar, getting bigger and bigger until it reached me ... bubble leters [sic] that spelled GOD. I was not raised any religion and was fairly doubtful there was such a thing, but in the dream I wrapped my arms around it and was suddenly enveloped in this light ... and it was everything and nothing at the same time. There were no questions or answers, as if they weren't necessary in this place. Everything was perfect, warm, and loving in a way I can't imagine explaining in words. As I floated in to this magnificence, I was just as suddenly hurled back out of it and woke up on the beach, wet and screaming "why did you bring me back? I don't want to come back!!!" (Christine)

Christine was born very prematurely by C-section: "My lungs had not developed yet and I had 'water in my lungs." The doctors told her parents it was hopeless, advising them to "baptize me and say goodbye as I was suffocating quickly. My mother told me I was completely blue when they saw me—I couldn't breathe."

Out-of-Body Memories of Fetal Life and Birth

Aquarter of the accounts (17, 25%; 10F, 7M) contained an OBE perspective of self-reported earthly events participants came to believe were true and accurate. When the respondent was still in the otherworldly realm, they were "allowed" to see what appeared to be a realistic preview of their future parents going about their daily lives. An example is Michelle, who saw a young man in a wheelchair who would become her father, or Denis who saw a woman walking down a street:

I remember the street, two stores, and some of what my future mother was wearing. I remember a voice next to me asking if this was the woman I wanted to be my mother ..., saying yes and then I was born. (Denis)

Paul's earliest memory was seeing his parents "driving onto the street where their new home was being built. The street was unfinished and I saw they were stuck in the mud." When Paul was a teenager, he told his father about his vision, and his father confirmed the memory.

When the participant was in transition to the material world, their out-of-body visions tended to focus on the environment surrounding the birth. For example, Yvoria saw her mother "passed out on a blue mat" and the white and pink curtains in the room, something she told her mother when she was three years old. Everly saw the hospital nursery from above and, when he was in his 30s, for the first time told his mother, drawing a plan view of the room. Both mothers confirmed the visions as accurate.

Some narratives contained material from inside and outside the body as birth became imminent. Louise, whose neck was broken, above, was with two caring entities watching her birth. They asked whether she wanted to continue coming into the life she was seeing; she did, so "they fixed the infant [made the body sufficiently healthy] so I could continue." She was "whooshed" back into the infant's body from which she had escaped, and from then on her awareness was in the body:

I remember them [hospital staff] rushing me down a corridor ... I was either upside down and seeing black squares on the floor or up the right way and saw the square lights in the ceiling as we went down the corridor, someone was carrying me wearing white clothes. (Louise)

I was floating, or hovering off the floor. I am spherical in shape I see two people, one of them holding a baby up by its ankles. I cannot tell if it is two doctors, or a nurse and a doctor because they are wearing surgical masks, gowns and caps. It is not them though that I am interested in, it is the baby. I move towards the baby and there the memory ends. I have always known that it is my birth that I was watching, and that the baby that I viewed is the body that I am in today. (John V)

I could see the Dr. holding me up and I was struggling to take that first breath. At that moment, it was as if my soul was in this body and outside of this body at the same time.

My first soul thought after incarnating was a thought of amusement ... as it occurred to me [that] I could just stop trying to breathe right now and return home. But, my second thought ... was one of admiration at the human body's will to fight to survive. And that interested me so much, that I chose to stay. I then fully joined with my body and fought for that first breath. (Shelly)

Similar OBEs and other paranormal elements figure prominently in the two third-person accounts of young boys submitted by adults amazed by their veridicality. Kat B's son told her about his birth when he was 3 years old and then again at age 13:

He described completely accurately the layout of the hospital room, the # of nurses that were in the room, where they were standing\positioned, and the fact that the doctor missed the actual birth and came into the room just after he was born ... not once did we ever talk about his birth ... but he remembered everything exactly the way it was. (Kat B about her son)

Nicola and another teacher were close friends. Her friend, pregnant and single, asked

Nicola to be with her in the delivery room, and she was there for Michael's birth. Tragically the mother suddenly died three months later, and her parents raised the boy. Later Michael became a student in Nicola's fourth-grade class. Michael knew that his mother and Nicola had been friends, but she had never mentioned his birth "because I didn't want the other students to think he had special treatment, and I didn't want to upset him with thoughts of his mother." Nicola was talking to the class about their earliest memories for a poetry-writing assignment when Michael raised his hand and said he remembered "watching everyone from up in the sky, and being in his mother's belly before he was born." He said that he had been invisible and had been with Nicola when she drove to the hospital in her grey car for his birth listening to a song called "Winter Spring Summer or Fall" (those are lyrics, not the title of James Taylor's You've Got a Friend). Nicola had indeed owned a grey car and played that song that day but had sold the car seven years earlier (when Michael would have been two). He reported that Nicola had stopped for gas and asked the attendant for directions and that "the parking lot was partially closed for construction, so I [Nicola] had to park on a corner and run to the hospital." All of the details were confirmed as accurate.

Then Michael said ... that while his "real mom" was in labor, he asked God if I [Nicola] could be his mom because he knew that his "real mom" wouldn't survive very long, and he was afraid of being alone on Earth. Apparently he was told that he couldn't have me for his "real mom" but that ... he would still get to be around me during his life

He watched me go ... from the birthing suite to the waiting lounge to make a phone call from a pay phone (true—there was no cell signal in the hospital), and that while I was there I was very cold so I put on a sweater that someone else left on the waiting room chairs ... I hate to admit this, but I did find a nice warm cardigan in that waiting room and I put it on because I was so cold. I've never done anything like that before, ... I waited to see if anyone would come to claim the sweater, and no one did I ... ended up

wearing it home I've felt so guilty that I never wore it again, especially because it reminds me of my friend [Michael's mother] who ended up passing away I've never told anyone about taking someone else's sweater

Michael ... was born about thirty minutes after I went to the lounge and made that phone call.

Later, I privately said to Michael, "Yes, I was at your birth. How did you know all of that stuff?" His grandparents weren't at the birth and there was literally no way he would have known any of that He said that it's easy, he just had to think back to his earliest memories. He asked me why I don't remember being born, too and he said "It's OK, my life did turn out OK. so don't worry about not being my mom." (Nicola about Michael)

Summary and Discussion of Fetal Life and Birth Results

In summary, although being in the womb was mostly pleasant, the assumption of a body was not. Coming into the body seemed to be rapid with few recollections of the birth process other than arriving in brightly lit, somewhat harsh delivery rooms for normal births. Most of the births recalled were traumatic and involved life-threatening conditions for the infant, including descriptions of health problems and medical interventions. Accounts tended to involve an out-of-body vantage point until the person came fully into the infant body. Most of the OBEs cited involved seeing the parents to whom they would be born and descriptions of the rooms and staff for delivery and perinatal care, which participants said were later confirmed by the parties present.

This study design involved limitations and delimitations that may have affected the results, discussed in the Part 1 article and not repeated here. Indeed, some of the factors that may have influenced the Part 1 accounts—participant familiarity with the popular pre-birth literature of a "heavenly" or otherworldly realm (e.g., Hinze, 2006, 2015; Newton, 2001, 2004, 2009, 2010) or popular NDE portrayals of an otherworldly afterlife in the media or accessible NDE literature (e.g., Ring,

1980, 1984, 2006)—are so alien to this data set that they are unlikely to have biased respondents. It is impossible to know whether or how much accounts of intrauterine life were influenced by what people imagine or know about gestation, despite the more abstruse nature of that literature. The same is true for birth: although more partners are allowed into delivery rooms today and witness birth, it is not possible to know how much such experience (not referenced in any of the sample records) might have influenced the accounts in this sample; and comparatively few people are familiar with the actual mechanics of birth.

Family stories of pregnancies and birth may well have influenced the accounts to an unknown degree Although most respondents said that they confronted their family members with their memories, which the relatives then confirmed, it is impossible to determine whether some prior communication had occurred, just as it is imossible to verify the accuracy of any of their accounts of details such as hospital room layouts (although such detail is frequently mentioned in the literature, discussed below). Furthermore, extreme situations, such as hazardous pregnancies and traumatic births may be treated in opposite ways in families: some tend to be secretive about disturbing events whereas others are very open, telling and retelling pregnancy and birth stories.

The sample in this article is a much smaller subset of the study data, so the numbers appear less robust, but all reported themes reached qualitative significance, and some reached saturation. The convergence of the data, the fact that little is commonly known about intrauterine and birth experiences, and the congruence of these findings with established literatures, support confidence in their validity.

Interpreting the Fetal and Perinatal Accounts

In both the otherworldly records treated in Part 1 and this data set, participants apparently were afforded a window into their future life, especially with regard to choosing their parents. This task was also identified by reincarnation intermission researchers Sharma and Tucker (2004) as stage three of the between-lives interval, in which some people after their deaths and during discarnate existence in an in-between place saw and followed their future

parents home as they performed mundane tasks or were directed to their parents by entities functioning as guides (p. 108), a stage elaborated by Matlock and Giesler-Petersen's (2016) investigation of Asian and Western reincarnation accounts, some of them verified (for instance James Leininger accurately described seeing his parents on a beach in Hawaii and their hotel 11 months before he was born; Tucker, 2013, p. 87). Thus, the data concerning parental choice, and possibly other life conditions, in Parts 1 and 2 of this study are consistent with the reincarnation intermission model's third stage. Matlock and Giesler-Petersen identified a fourth stage, life in the womb, in only four cases, and a fifth stage, birth and its immediate aftermath, in one case, which was verified (that of Bobby Hodges; Tucker, 2013, p. 177). Their analysis involved only cases from the reincarnation literature, which they acknowledge depressed the number of womb and birth memories (Matlock, 2017), as noted in Part 1, whereas Ohkado and Ikegawa (2014) and Ohkado (2015), who examined pre-birth recollections, found the opposite: that womb and birth memories were far more common than past-life memories. To the extent that the intermission research and these data in Parts 1 and 2 mesh, the present study supports the intermission model and elaborates stages 3-5 that are not otherwise well detailed in other literatures, though their structure is identified.

However, the majority of the data in this article addresses issues of fetal sentience and memory and models of consciousness: central nerous system, distributed, and non-local. The fetal and perinatal texts in this study are consistent with aspects of CNS research on fetal sentience, discussed in Part 1, especially awareness of, and even habituation to, vibroacoustical sounds before the cochlear nerve is complete (cf., Holst et al., 2005; Dragnova et al., 2007; Dragnova et al., 2018). Prenates demonstrate long-term retention (Dirix et al., 2009; Muenssinger et al., 2013; van Heteren et al., 2000), including retaining memories of events that occurred while they were in the womb after birth (e.g., Gonzalez-Gonzalez et al., 2006; James, 2010; James et al., 2002; Jardri et al., 2011; Lang et al., 2021). Thus the impressions formed during intrauterine life and birth reported in this study, even though somewhat

vague, are quite possible, especially since accurate reporting and re-enactment of such early memories have been demonstrated by infants and children in both normal and therapeutic altered states (e.g., Bókkón et al., 2014; Chamberlain, 1986, 1988; Cheek, 1974, 1975, 1986; Cotiga & Stulz-Koller, 2021; Emerson, 1998, 2020; Ingram, 2016; Laibow, 1986; Leonard, 2002; Malaspina et al., 2008; Meinlschmidt, & Tegethoff, 2015; Pharaoh & Adi, 2000; Rhodes, 2015; Sandman et al., 2012; Verny, 2012).

The same is true for birth memories. Spontaneous remarks about the body's weight, need for breathing, painfully bright lights, and coldness once outside the mother's body like the ones in this study have parallels in the altered-state regression records (cf. Chamberlain, 1986, 1989; Laibow, 1986) and are details few adults might fantasize if trying to imagine being born; indeed, regressed individuals have produced accurate reports of abstruse medical conditions or procedures lay people rarely know about (Chamberlain, 1990; Grof, 1985; Laibow, 1986, 1988; Laing, 1982; van Husen, 1988), especially by including material that would be unknown, counterintuitive, or contrary to consciously held beliefs. The emergence of virtually impossible-to-falsify somatic memories during body work, such as Marvin's reliving a high forceps delivery during a Reiki session, also occurs in altered-state regression (e.g., Cheek, 1974, 1975, 1986; Grof & Bennett, 1990), as do memories of abstruse neonatal medical interventions, such as Derrick's (e.g., Grof, 1985; Laibow 1986, 1988; Laing, 1982).

Research on how the body retains, expresses, and processes memories (e.g., Levine, 2015; Levine & Kline, 2007; Ogden et al., 2006; Sutton, 2017; van der Kolk, 1994, 2003; Verny, 2014), especially trauma, supports the veridicality of such somatically held memories, including accounting for the disproportionately large number of traumatic versus normal birth memories in this sample. The retention and expression of somatic memories distributed throughout the body through RNA, DNA, and other structures not restricted to the CNS (e.g., Khoo et al., 2020; Liester, 2020; Pearsall et al., 2002; Vitaloni, 2014) provide additional support

for data apparently coming from a time before the cerebral cortex was fully functioning.

Necessarily, this study design could not validate participants' reports of having only retrospectively verified their experience with their parents. For instance, it would be impossible to know whether Christine's adolescent dream and later waking vision during a Reiki session of drowning, along with her impression that she had almost died perinatally, resulted from family stories about her birth or whether her parents had never spoken of it until she confronted them with her recollections. It may well be that difficult births, especially ones in which the baby's survival was in question, were recounted in the family more than normal births would have occasioned remark. Moreover, the prevailing belief is that memory is "so dependent on processing that it is, in effect, a constructive (or 'reconstructive') process whereby memories often change or are distorted, often without the person being aware of these changes" (Barry et al., 2006, p. 723); in other words, participants in this study may have unconsciously altered their own stories to coincide with the accounts of others or even accepted the recollections of others as their own. However, it is also true that clients in regression therapy have produced veridical memories of information unknown to parents but known to medical personnel attending the birth (e.g., Chamberlain, 1986; Cheek, 1974, 1976, 1986, 1992). Furthermore, near-death experiences occur perinatally (Roedding, 1991; Serdahely & Walker, 1990), such as the likely ones described in this study by Louise and Christine, in which the phenomenology of both the pre-birth and near-death otherworlds may be conflated and fluctuating with each other and the experience of being born.

Explanations limiting memory to conventional understandings of neurological functions will not account for the OBE texts in this study illustrating how awareness fluctuates between looking out at events from the physical eyes of the neonate with their limited visual acuity and seeming to observe the baby and others from an out-of-body vantage point with perfect vision. Visual impressions inside the womb should be quite general since the the eyes are fused shut until the twenty-sixth week and

the womb is dark; moreover, even at birth infants have only about 20/600 vision and often cannot move or focus the eyes in a coordinated way (Peleg & Goldman, 1980). The intrauterine accounts are congruent with that. Such impressions are in sharp contrast to the out-of-body-perspective images, undistinguishable from normal, adult visual acuity and full of details, reportedly verified in many cases and not necessarily things that parents would have described, such as the room layouts mentioned by Everly and Yvoria. Exactly such details as accurate room layout, feeding sequences, number of people present and their roles, appear in veridical records in the regression research (e.g., Chamberlain, 1986, 1988). So do earlier events, such as the veridical reenactments of prenatal parental conflict by children in normal states (e.g., Blasco, 2007; Laibow, 1986, 1988; McCarty, 2004) and hypnotically regressed adults (e.g., Chamberlain, 1990; Cheek, 1992; Grof & Bennett, 1990).

As early as 1982, Verny and Kelly posited a non-local source of fetal and neonatal awareness (pp. 191–192) in addition to a bodily source, an idea elaborated by Wade's (1996, 1988b) text analysis of pre- and peri-natal accounts: an individual's embodied perspective tends to focus on somatic dynamics, sensory impressions, and survival, whereas that person's out-of-body perspective tends to be mature, dispassionate, compassionate, and unconcerned with egoic needs, including its own survival, resembling the OBE phase in NDE accounts when the dying person sees their body, efforts to resuscitate it, and distressed loved ones (e.g., Ring, 1980, 1984; Wade, 1998a). This more objective OBE view is well illustrated in the two boys' accounts above.

The phenomenology of OBEs, which can occur in a wide variety of conditions, has not been systematically studied, however, and their qualities apparently vary by circumstance (cf., Braithwaite et al., 2017; DeRidder et al., 2007; Neppe, 2011; Tong, 2003), though emotions, perceptions, and thoughts generally seem to be normal or more intense (e.g., Alvaredo, 2001; Griffin, 1997; Sudduth, 2016; Zingrone, 2010). Near-death and pre- and peri-natal OBEs share a confounding factor not present in other OBEs in that the brain is not functioning normally

(owing to oxygen starvation or other trauma among the dying, and to immature development among pre- and neo-nates) and the eyes are blind (closed, injured, or obscured by blood, dressings, and the like among the dying, and either within the mother's body or too immature for visual acuity among pre- and neo-nates). Yet in both kinds of OBEs, people can provide detailed, accurate reports of others present, the physical surroundings, actions, conversations and even the unspoken thoughts of others (e.g., Chamberlain, 1988, 1990; Grof & Bennett, 1990; Moody, 1975, 1977; Ring, 1980, 1984).

For years skeptics have attacked veridical NDE OBE data (reviewed in Fracasso & Friedman, 2011; Greyson, 2015, 2017; Laws, & Perry, 2010; Neppe, 2011), trying to dismiss their validity by ascribing them to abnormal CNS activity or to discredit the experiencer's mental health without successfully accounting for all the data; virtually none of those arguments apply to perinatal conditions (e.g., Wade, 1998a). Although the preand peri-natal OBE material is too little known to have been directly challenged at this time—it is usually dismissed wholesale as impossible—such critiques follow similar lines: people should not be able to recall pre- or peri-natal events because 1) memory exclusively derives from the CNS, which is too immature to form episodic or autobiographical memories, (counter to evidence provided in Part 1 of this paper); 2) people who claim to have such memories are prone to fantasy or are otherwise mentally deficient (cf. Radin, 2005); and 3) preverbal episodic memories are lost through childhood amnesia as the brain matures.

A representative critique comes from Patihis and Younes Burton (2015), who attempted to show that the published cases of numerous psychologists using diverse regression methods to obtain pre- and peri-natal memories must all involve false-memory implantation—not because Patihis and Younes Burton could actually invalidate any of the data as implanted memories—but "because they involve episodic memory recall during the infantile amnesia period ... [and] reflect the dubious proposition of an infant understanding and encoding language" (p. 158). This led them to dismiss cases that contained third-party verified data unknown to anyone else,

according to the people involved, such as, for instance, Farrant (1987) confronting his 79-year-old mother with a recovered memory that she had tried to abort him. She denied it until he described how she had taken a lot of pills and gotten into a very hot bath, at which point she burst into tears and asked how he could possibly know something she had never disclosed to anyone. In other words, the memories could not have occurred because the skeptics believed they could not have occurred, not because they could actually invalidate the evidence—a stance all too familiar in scientific circles when new information does not fit preconceived ideas or old paradigms (e.g., Kuhn, 1962; cf. Jordania, 2020).

Regarding the challenge that OBE memories containing verbal accounts of actions, conversations, or the unspoken thoughts of others should be impossible for preverbal infants to process, research has shown that even under laboratory conditions, very young children can convey accurate recall of preverbal events (Dahl et al., 2015; Morris, & Baker-Ward, 2007), and that they retain and can express preverbal trauma much longer (e.g., Drell et al., 1993; Solter, 2008; Terr, 1988), including intrauterine and birth memories (e.g., Cheek, 1974, 1975, 1986, 1992; Rhodes, 2015). For example, during play therapy, a 13-month-old boy repeatedly choked a baby doll against a wall, an accurate re-enactment of what had occurred when his mother told the father she was pregnant with him: the father slammed her against a wall and tried to strangle her (McCarty, 2004). Later, children, with the vocabulary of their age, can describe events in words, and can recall the gist of conversations and sometimes the exact words, as verified by the adults present. Laboratory studies have verified speech recognition in utero (Moon et al., 2010; Partanen et al., 2013). However, for most children, these pre- and peri-natal memories are lost to conscious recall with age (e.g., Solter, 2008; Bauer, 2008, 2014, 2015), in accordance with the infantile amnesia data and consistent with the fading of children's spontaneous recollection of past-lives with age (e.g., Stevenson, 1974, 1975, 1977a, 1977b, 1980, 1983a, 1983b, 1997a, 1997b, 2003). The preand peri-natal material can, however, be recovered using altered-state regression (e.g., Chamberlain,

1986, 1988, 1990; Cheek, 1986, 1992; Kelsey, 1953; Maret, 2003; McCarty, 2004), including verbal records (e.g., Clark, 2015; Cozolino, 2010), often third-party verified.

Implicit memory theories, especially since they involve perceptual rather than cognitive or gist-related impressions, could account for some aspects of such recollections, especially emotional tone (e.g., Dirix et al., 2009; Gustafson et al., 2022; Hepper, 1996; Kisilevsky et al., 2003; Kisilevsky et al. 2009; Packard et al., 2014). The degree to which autobiographical memory, assumed to be explicit, is limited to explicit memory is debatable (e.g., Barnier, 2002; Conway, & Pleydell-Pearce, 2000; Magno & Allan, 2007; Rubin, 2000, 2006), and Magno and Allan (2007) found a common neural signature associated with self-referential processing associated with both explicit and implicit memory (i.e., possessing a continuous, unity sense of self extending over time). Whether any of these theories address the level of CNS development at the third trimester GA, much less at earlier times, has yet to be established. Even if it were, they would not account for accurate OBE memories from the pre- and peri-natal period.

Possible explanations for the recovery of veridical fetal and perinatal memories, including those with OBE components, have been advanced in the consciousness and paranormal literature to account for similar phenomena (e.g., Dossey et al., 2011; Penrose et al., 2011; Schwartz et al., 2018; Tashaev, 2007) and to provide a more adequate paradigm for consciousness per se, a discussion beyond the scope of this paper. Suffice it to say that nonlocal theories of mind that would account for veridical pre- and peri-natal data include: having psychic connections to information possessed by others present, including their memories (e.g., Cardeña et al., 2015; Cheek, 1992; Pizzi, 2004; Stokes, 2007; Sudduth, 2016); quantum entanglement theories that posit the linking of minds outside conventional means (e.g., Dossey et al., 2011; Radin, 2006; Standish et al., 2003; Standish et al., 2004; Wackerman et al., 2003); the super-psi hypothesis, which comprises extra-sensory perception (the acquisition of information about past, present, or future mental or physical events, objects, or influences outside known sensory channels; cf.

Alvarado, & Martinez-Taboas, 1983; Cardeña et al., 2015; May & Marwaha, 2014, 2015; Rock et al., 2013; Zingrone, 2010) and retrocognition (non-inferential knowledge of a past event by paranormal means; Berger & Berger, 1991a; Cardeña et al., 2015; Melton, 2001); and the multiple sources of psi hypothesis (Merlin, 2020a, 2020b). Many possible scientific explanations outside conventional neuroscience, obstetrics, pediatrics, and psychology can accommodate the veridical data in this study.

Conclusion

Although research on fetal and perinatal memory is challenging to design and conduct, especially in today's politically and religiously charged environment, few periods have greater potential to improve the quality of life, and the subset of data treated in this article points to something quite different from the metaphysical issues of the continuation of personal essence from a previous to a future life more pertinent to the Part 1 data.

Research into fetal and peri-natal sentience, particularly the role of trauma during gestation and birth, could provide a long-needed re-examination of policy surrounding conception and abortion and not in the expected ways: experts in pre- and peri-natal psychology are advocates of neither pro-life nor pro-choice positions but of having no unwanted children because bringing them into the world condemns them to lives of dysfunction, violence, and crime (e.g., Jacobson et al., 1987; Dytrych et al., 1988; Forssman & Thuwe, 1988; Levitt & Dubner, 2009; Matejceck et al., 1988). Other areas of potential benefit include re-examining pre- and peri-natal care and obstetrical procedures that pose significant iatrogenic risk physiologically as well as psychologically, including such routine procedures as ultrasound imaging (e.g., Rosman et al., 2018), medically unnecessary cesarean sections and induced labor (Bókkón, 2014; Chavarro et al., 2020; Dinan et al., 2022; Polidano et al., 2017), and circumcision and other early surgical interventions, often conducted without anesthesia (e.g., Bollinger & Van Howe, 2011; Boyle, 2015; Boyle et al., 2002; Emerson, 2020). Trauma associated with birth and earlier uterine events, such as twin loss, could be swiftly addressed, if not prenatally, then through early interventions with infants and toddlers; such an approach, amply demonstrated by prenatal psychologists, may potentially short-cut a lifetime of misery, (e.g., Barnett, 1983; Bókkón, 2014; Emerson, 1987, 1996, 1998, 2000, 2007; Gupta & Cabacungan, 2021; Grof & Taylor, 2009; Hull, 1986; Ingram, 2016; Laibow, 1988; Lyman, 2011; McCarty, 2004; Simpson & Catling, 2015; Sutton, 2017). To date birth trauma is an under-reported and largely unrecognized phenomenon, especially in the United States, with the greatest emphasis on the mother's trauma, not the infant's, and even for her, care is spotty, at best (e.g., Beck, 2004a, 2004b).

Systematic study of common gestational conditions, such as pre- and peri-natal loss of womb siblings, parental preference for the unborn child's sex, and rejection of the pregnancy by the father, could shed light on problems now seldom recognized as contributing to neonatal health or the infant's future wellbeing. Prenatal recall of such events could be systsematically and longitudinally studied, using prospective techniques beginning as close to conception as possible by charting the mothers' experiences and comparing those retrospectively with the children's recollections up to five years of age, when such memories tend to be forgotten. Chamberlain's 1986 research comparing data from medical personnel and regressed mothers about birth with children's accounts could be replicated with larger samples and comparison groups to assess verifiable early memories. Crosscultural investigation of early memories, like that of NDEs, could examine the extent of otherworldly memory distribution, per the accounts in Part 1, as well as whether they indeed share common features. As noted, all such data could be used to improve preparation for conception, pregnancy health practices, and obstetrical and neonatal medicine.

The dramatic changes therapists working with fetal and neonatal events have seen when clients recover and integrate such early impressions have shown that, regardless of their veridicality, processing such material helps people resolve longstanding psychological and physical problems, many resistant to other forms of treatment (e.g., Appleton, 2017; Barnett, 1983; Chamberlain, 1989; Cheek, 1975, 1986; Cotiga & Stulz-Koller,

2021; Emmerson, 1987, 1996, 1998, 2000, 2007, 2020; Grof & Taylor, 2009; Hull, 1986; Ingram, 2016; Lyman, 2011; McCarty, 2004; Sutton, 2017). Resolution is easier the earlier the issues are treated, such as with immediate interventions for infants and young children, but even for adults using regression methods resolution can be much faster than other forms of therapy since altered states can access state-dependent dynamics from early life.

The fact that fetal and perinatal accounts congruent with little known pre-birth and perinatal studies emerged voluntarily in this study suggests that people's earliest memories, especially when they go back to the womb, represent a rich, largely untapped source for healing modalities, and that such information, instead of being discounted, should be taken seriously on behalf of the clients, regardless of the clinician's beliefs.

References

- Alvarado, C. S. (2001). Out-of-body experiences. In E. Cardeña, S. J. Lynn, & S. Krippner (Eds.), *Varieties of anomalous experience: Examining the scientific evidence* (pp. 183–218). American Psychological Association.
- Alvarado, C. S., & Martinez-Taboas, A. (1983). The super-psi hypothesis: A review. *Theta*, *11*(3), 57–62.
- Appleton, M. (2017). The influence of birth trauma on the physiological and emotional well-being of the baby. *Journal of Prenatal & Perinatal Psychology & Health*, 31(3), 165–176.
- Barnett, E. A. (1983). The role of prenatal trauma in the development of the negative birth experience. *Pre- and Peri-Natal Psychology, 1*(3), 191–207.
- Barnier, A. J. (2002). Posthypnotic amnesia for autobiographical episodes: A laboratory model for functional amnesia. *Psychological Science*, *13*(3), 232–237. https://doi.org/10.1111/1467-9280.00443
- Barry, E. S., Naus, M. J., & Rehm, L. P. (2006). Depression, implicit memory, and self: A revised memory model of emotion. *Clinical Psychology Review*, 26, 719–245. https://doi.org/10.1016/j.cpr.2005.06.003

- Bauer, P. J. (2008). Infantile amnesia. In M. M. Haith & J. B. Benson (Eds.), *Encyclopedia of infant and early childhood development* (pp. 51–62). Academic Press. https://doi.org/10.1016/ B978-012370877-9.00007-4
- Bauer, P. J. (2014). The development of forgetting: Childhood amnesia. In P. J. Bauer & R. Fivush (Eds.), *The Wiley-Blackwell handbook on the development of children's memory* (pp. 519–544). Wiley-Blackwell.
- Bauer, P. U. (2015). A complementary processes account of the development of childhood amnesia and a personal past. *Psychological Review, 122*(2), 204–231. https://doi.org/10.1037/a0038939
- Beck, C. T. (2004). Birth trauma: In the eye of the beholder. *Nursing Research*, *53*(1), 28–35. https://doi.org/10.1097/00006199-200401000-00005
- Beck, C. T. (2004). Post-traumatic stress disorder due to childbirth: The aftermath. *Nursing Research*, 53(4), 216–224. https://doi.org/10.1097/000061 99-200407000-00004
- Berger, A. S., & Berger, J. (1991a). Retrocognition. In A. S. Berger, & J. Berger, *The encyclopedia of parapsychology and psychical research* (p. 356). Paragon House.
- Berger, A. S., & Berger, J. (1991b). Super ESP. In *The* encyclopedia of parapsychology and psychical research (p. 421). Paragon House.
- Blasco, T. M. A. (2007). Prenatal and perinatal memories in preverbal children: Clinical observations using videotape examination. *Journal of Prenatal and Perinatal Psychology and Health*, 22(1), 31–53.
- Bókkón, I., Vas, J. P., Császár, N. & Lukács, T. (2014). Challenges to free will: Transgenerational epigenetic information, unconscious processes, and vanishing twin syndrome. *Reviews in the Neurosciences*, *25*(1), 163–175. https://doi.org/10.1515/revneuro-2013-0036
- Bollinger, D., & van Howe, R. (2011). Alexithymia and circumcision trauma: A preliminary investigation. *International Journal of Men's Health, 10*(2), 184–195. https://doi.org/10.3149/jmh.1002.184
- Boyle., G. J. (2015). Circumcision of infants and children: Short-term trauma and long-term psychosexual harm. *Advances in Sexual Medicine*, *5*(2), 16 pages. https://doi.org/10.4236/asm.2015.52004

- Boyle, G. J., Goldman, R., Svoboda, J. S., Hernandez, E. (2002). Male circumcision: Pain, trauma and psychosexual sequelae. *Journal of Health Psychology, 7*(3), 329–343. https://doi.org/10.1177/135910530200700310
- Braithwaite, J. J., Watson, D. G., & Dewe, H. (2017). Predisposition to out-of-body experience (OBE) is associated with aberrations in multisensory integration: Psychophysiological support from a "rubber hand illusion." *Journal of Experimental Psychology: Human Perception and Performance*, 43(6), 1125–1143. https://doi.org/10.037/xhp0000406
- Cardeña, E., Marcusson-Clavertz, D., & Palmer, J. (2015). Preface: Reintroducing parapsychology. In E. Cardeña, J. Palmer, & D. Marcusson-Clavertz (Eds.), *Parapsychology: A handbook for the 21st century* (pp. 1–11). McFarland.
- Chamberlain, D. B. (1986). Reliability of birth memories: Evidence from mother and child pairs in hypnosis. *Journal of the American Academy of Medical Hypnoanalysis*, *1*(2), 89–98.
- Chamberlain, D. B. (1988). *Babies remember birth:* And other extraordinary scientific discoveries about the mind and personality of your newborn. Jeremy P. Tarcher.
- Chamberlain, D. B. (1989). Babies remember pain. *Pre- & Perinatal Psychology Journal, 3*(4), 297–310.
- Chamberlain, D. B. (1990). The expanding boundaries of memory. *Pre-* & *Perinatal Psychology Journal*, 4(2), 171–190.
- Chavarro, J. E., Martin-Calvo, N., Yuan, C., Arvisu, M., Rich-Edwards, J. W., Michels, K. B., & Sun, Q. (2020). Association of birth by cesarean delivery with obesity and type 2 diabetes among adult women. *Journal of the American Medical Association Network Open*, *3*(4), e202605. https://doi.org/10/1001/jamanetworkopen.2020.2605
- Cheek, D. B. (1974). Sequential head and shoulder movements appearing with age regression hypnosis to birth. *American Journal of Clinical Hypnosis*, *16*, 261–266. https://doi.org/10.1080/00029157.1974.10403691
- Cheek, D. B. (1975). Maladjustment patterns apparently related to imprinting at birth. *American Journal of Clinical Hypnosis 18*, 75–82. https://doi.org/10.1080/00029157.1975.10403779

- Cheek, D. B. (1986). Prenatal and perinatal imprints: Apparent prenatal consciousness as revealed by hypnosis. *Pre- & Perinatal Psychology Journal*, *1*(2), 97–110.
- Cheek, D. B. (1992). Are telepathy, clairvoyance and "hearing" possible in utero? Suggestive evidence as revealed during hypnotic age-regression studies of prenatal memory. *Pre- & Perinatal Psychology Journal*, 7(2), 125–137.
- Clark, J. (2015). Neuroscience implications of using hypnoanalysis: Two case studies. *Activitas Nervosa Superior*, *57*(2), 49–58. https://doi.org/10.1007/BF03379623
- Conway, M. A., & Pleydell-Pearce, C. W. (2000). The construction of autobiographical memories in the self-memory system. *Psychological Review, 107,* 261–288. https://doi.org/10.1037/0033-295X.107. 2.261
- Cotiga, A. C., & Stulz-Koller, A. (2021). Early traumatic events & implications for the development of emotional connection: Two case studies using trauma play therapy with children. *Journal of Prenatal and Perinatal Psychology and Health* 35(1), 58–76.
- Cozolino, L. (2010). The neuroscience of psychotherapy: Healing the social brain (2nd ed.). W. W. Norton.
- Dahl, J. J., Kingo, O. S., & Krøjgaard, P. (2015). The magic shrinking machine revisited: The presence of props at recall facilitates memory in 3-year-olds. *Developmental Psychology*, *51*(12), 1704–1716. https://doi.org/10.1037/dev0000050
- DeRidder, D., Van Laere, K., Dupont, P., Menovsky, T., & Van de Heyning, P. (2007). Visualizing out-of-body experience in the brain. *The New England Journal of Medicine*, *357*(18), 1829–1833. https://doi.org/10.1056/NEJMoa070010
- Dinan, T. G., Kennedy, P. J., Morais, L. H., Murphy, A., Long-Smith, C. M., Moloney, G. M., Bastiaanssen, F. S., Allen, A. P., Collery, A., Mullins, D., Cusack, A.-M., Berding, K., O'Toole, P. W., Clarke, G., Stanton, C., & Cryan, J. F. (2022). Altered stress response in adults born by Caesarean section. *Neurobiology of Stress, 16*, https://doi.org/10.1016/j.ynstr.2021.100425
- Dirix, C. E. H., Nijhuis, J. G., Jongsma, H. W., & Hornstra, G. (2009). Aspects of fetal learning and

- memory. *Child Development 80*(4), 1251–1258. https://doi.org/10.1111/j.1467-8624.2009.01 329.x
- Dossey, L., Greyson, B., Sturrock, P. A., & Tucker, J. B. (2011). Consciousness—What is it? *Journal of Cosmology*, 24, 4697–4711.
- Dragnova, R., Eswaran, H., Murphy, P., Lowery, C., & Preissl, H. (2007). Serial magneto-encephalographic study of fetal newborn auditory discriminative evoked responses. *Early Human Development*, *83*(3), 199–207. https://doi.org/10.1016/j.earlhumdev.2006.0 5.018
- Dragnova, R., Schollback, A., Schleger, F., Braendle, J., Brucker, S., Abele, H., Kagan, K. O., Wallwiener, D., Fritsche, A., Eswaran, H., & Preissl, H. (2018). Fetal auditory evoked responses to onset of amplitude modulated sounds. A fetal magnetoencephalography (fMEG) study. *Hearing Research*, 363, 70–77. https://doi.org/10/1016/j.heares.2018.0 3.005
- Drell, M. J., Siegel, C. H., & Gaensbauer, T. J. (1993). Post-traumatic stress disorder. In C. H. Zeanah (Ed.), *Handbook of infant mental health* (pp. 291–304). Guildford Press.
- Dytrych, A., Matejcek, Z., & Schuller, V. (1988). The Prague cohort: Adolescence and early adulthood. In H. P. David, Z. Dytrych, Z. Matejcek, & V. Schuller, (Eds.), *Born unwanted: Development effects of denied abortion* (pp. 87–102). Avicenum.
- Emerson, W. R. (1987). Primal therapy with infants. *Aesthema, 7,* 61–67.
- Emerson, W. R. (1996). *Treatment of birth trauma in infants & children: Collected works of William Emerson, Ph.D. (Vol 1)*. Emerson Training Seminars.
- Emerson, W. R. (1998). Birth trauma: The psychological effects of obstetrical interventions. *Journal of Prenatal and Perinatal Psychology and Health, 13*(1), 11–44.
- Emerson, W. R. (2000). *Pre- and peri-natal regression therapy: Collected works of William R. Emerson, Ph.D. (Vol. 2).* Emerson Training Seminars.
- Emerson, W. R. (2007). *Twin loss: Intimacy in retrospect*. Unpublished manuscript.

- Emerson, W. R. (2020). Stress, trauma and shock: The failures and successes of cathartic regression therapy. In K. Everts, L. Janus, & R. Linder (Eds.), Handbook of prenatal and perinatal psychology: Integrating research and practice (pp. 519–541). Springer.
- Farrant, G. (1987). Cellular consciousness. *Aesthema*, 7, 28–39.
- Forssman, H., & Thuwe, I. (1988). The Goteborg cohort 1939–1977. In H. P. David, Z. Dytrych, Z. Matejcek, & V. Schuller, (Eds.), *Born unwanted: Development effects of denied abortion* (pp. 37–45). Avicenum.
- Fracasso, C., & Friedman, H. (2011). Near-death experiences and the possibility of disembodied consciousness: Challenges to prevailing neurobiological and psychosocial theories. *Neuro-Quantology*, 9(1), 41–53. https://doi.org/10.14704/nq.2011.9.1.389
- Gonzalez-Gonzalez, N. L., Suarez, M. N., Perez-Pinero, B., Armas, H., Domenech, E., & Bartha, J. L. (2006). Persistence of fetal memory into neonatal life. *Acta obstetrica et gynecologica Scandinavica*, *85*(10), 1160–1164. https://doi.org/10.1080/00016340600855
- Greyson, B. (2015). Western scientific approaches to near-death experiences. *Humanities*, *4*, 775–796. https://doi.org/10.3390/h4040775
- Greyson, B. (2017). An overview of near-death experiences. In J. C. Hagan (Ed.), *The science of near-death experiences* (pp. 19–28). University of Missouri Press.
- Griffin, D. R. (1997). Parapsychology, philosophy, and spirituality: A postmodern exploration. State University of New York Press.
- Grof, S. (1985). Beyond the brain: Birth, death and transcendence in psychotherapy. State University of New York Press.
- Grof, S., & Bennett H. Z. (1990). The holotropic mind: The three levels of human consciousness and how they shape our lives. Harper
- Grof, S., & Taylor, K. (2009). The healing potential of holotropic breathwork. In S. Mijares (Ed.), *The revelation of the breath: A tribute to its wisdom, power and beauty* (pp. 95–106). State University of New York Press.

- Gupta, R., & Cabacungan, E. T. (2021). Neonatal birth trauma: Analysis of yearly trends, risk factors, and outcomes. *The Journal of Pediatrics, 238,* 174–180.e3. https://doi.org/10.1016/j.jpeds.2021.06.080
- Gustafson, H., Hammond, J., Spicer, J., Kuzava, S., Werner, E., Spann, M., Marsh, R., Feng, T., Lee, S., & Monk, C. (2022). Third trimester fetuses demonstrate priming, a form of implicit memory, in utero. *Children*, *9*(11), 1670. https://www.mdpi.com/2227-9067/9/1/1670
- Hepper, P. G., & Waldman, B. (1992). Embryonic olfactory learning in frogs. *The Quarterly Journal of Experimental Psychology*, 44B, 179–197. https://doi.org/10.1080/02724999208250611
- Hepper, P. G. (1996). Fetal memory: Does it exist? What does it do? *Acta Paediatrica*, 85, s416, 16–20. https://doi.org/10.1111/j.1651-2227.1996. tb14272.x
- Hinze, S. (2006). We lived in heaven: Accounts of souls coming to earth. Spring Creek.
- Hinze, S. (2015). The castaways: New evidence supporting the rights of the unborn child (15th anniversary ed.). Three Orchard.
- Holst, M., Eswaran, H., Lowery, C., Murphy, P., Norton, J., & Preissl, H. (2005). Development of auditory evoked fields in human fetuses and newborns: A longitudinal MEG study. *Clinical Neurophysiology*, *116*(8), 1949–1955. https://doi.org/10.1016/j.clinph.2005.04.008
- Hull, W. F. (1986). Psychological treatment of birth trauma with age regression and its relationship to chemical dependency. *Pre- and Peri-natal Psychology Journal*, 1(2), 111–134.
- Ingram, J. (2016). Hypnotherapy in the treatment of children and adults who suffer anxiety due to prenatal and birth trauma. *Journal of Prenatal and Perinatal Psychology and Health, 30*(4), 272–278.
- Jacobson, B., Eklund, G., Hamberger, L., Linnarsson, D., Sedvall, G., & Valverius, M. (1987). Perinatal origin of eventual self-destructive behavior. *Acta Psychiatrica Scandinavica*, 76, 364–371. https://doi.org/10.1111/j.1600-0447.1987.tb05620.x
- James, D. K. (2010). Fetal learning: A critical review. Infant and Child Development 19, 45–54. https://doi.org/10.1002/icd.653

- James, D. K., Spencer, C. J., & Stepsis, B. W. (2002). Fetal learning: A prospective randomized controlled study. *Ultrasound in Obstetrics & Gynecology, 20*(5), 431–438. https://doi.org/10.1080/00016340600855854
- Jardri, R., Houfflin-Debarge, V., Delion, P., Pruvo, J-P., Thomas, P., & Pins, D. (2011). Assessing fetal response to maternal speech using a noninvasive functional brain imaging technique. *International Journal of Developmental Neuroscience*, 30, 159–161. https://doi.org/10.1016/j.ijdevneu.2011.11.002
- Jordania, J. (2020). *The human story behind scientific discovery*. Program LOGOS.
- Kelsey, D. E. R. (1953). Phantasies of birth and prenatal experience recovered from patients undergoing hypnoanalysis. *Journal of Mental Science/British Journal of Psychiatry*, 99, 216–223. https://doi.org/10.1192/bjp.99.415.216
- Khoo, T. S., Jamal, R., Ghani, N. A. A., Alauddin, H., Hussin, N. H., & Morad, N. A. A. (2020). Retention of somatic memory associated with cell identity, age and metabolism in induced pluripotent stem (iPS) cells reprogramming. *Stem Cell Reviews and Reports, 16*, 251–261. https://doi.org/10.1007/s12015-020-09956-x
- Kisilevsky, B. S., Hains, S. M. J., Lee, K., Xie, X., Huang, H., Ye, H. H., Zhang, K., & Wang, Z. (2003). Effects of experience on fetal voice recognition. *Psychological Science*, *14*(3), 220–224. https://doi.org/10.1111/1467-9280.02435
- Kisilevsky, B. S., Hains, S. M. J., Brown, C. A., Lee, C. T., Cowperthwaite, B. Stutzman, S. S., Swansburg, M. L., Lee, K., Xie, X., Huang, H., Ye, H.-H., Zhang, K., & Wang, Z. (2009). Fetal sensitivity to properties of maternal speech and language. *Infant Behavior and Development,* 21(1), 59–71. https://doi.org/10/1016/j.infbeh.20 08.10.002
- Kuhn, T. S. (1962). *The structure of scientific revolutions*. Chicago University Press.
- Laibow, R. E. (1986). Birth recall: A clinical report. *Pre- & Perinatal Psychology Journal* 1(1), 78–81.
- Laibow, R. E. (1988). Prenatal and perinatal experience and developmental impairment. In P. Fedor-Freybergh & M. L. V. Vogel (Eds.), *Prenatal and perinatal psychology and medicine:*

- Encounter with the unborn (pp. 295–308). Parthenon.
- Laing, R. D. (1982). *The voice of experience*. Allen Lane.
- Lang, A., del Guidice, R., & Schabus, M. (2020). Sleep, little baby: The calming effects of prenatal speech exposure on newborns' sleep and heartrate. *Brain Sciences*, *10*, 511. https://doi.org/10.3390/brainsci10080511
- Laws, V., & Perry, E. (2010). Near death experiences: A new algorithmic approach to verifying consciousness outside the body. *Neuro-Quantology*, 2, 142–154. https://doi.org/10.14704/ ng.2010.8.2.280
- Leonard, L. G. (2002). Prenatal behavior of multiples: Implications for families and nurses. *Journal of Obstetric, Gynecological, and Neonatal Nursing*, 31(3), 248–255.
- Levine, P. A. (2015). Trauma and memory: Brain and body in a search for the living past: A practical guide for understanding and working with traumatic memory. North Atlantic Books.
- Levine P. A., & Kline, M. (2007). Trauma through the eyes of a child: Awakening the ordinary miracle of healing, infancy through adolescence. North Atlantic Books.
- Levitt, S., & Dubner, S. (2009). *Freakonomics: A rogue economist explores the hidden side of everything* (Revised and expanded ed.). HarperCollins.
- Liester, M. B. (2020). Personality changes following heart transplantation: The role of cellular memory. *Journal of Medical Hypotheses, 135,* 109468. https://doi.org/10.1016/j.mehy.2019.109468
- Lyman, B. J. (2011). Prenatal and perinatal trauma case formulation: Toward an evidence-based assessment of the origins of repetitive behaviors in adults. *Journal of Prenatal & Perinatal Psychology & Health*, 25(4), 235–263.
- Mackey, E. F. (2009). Age regression: A case study. *Annals of the American Psychotherapy Association, Winter,* 46–49.
- Magno, E., & Allan, K. (2007). Self-reference during explicit memory retrieval: An event-related potential analysis. *Psychological Science 18*(8), https://doi.org/10.1111/j.1467-9280.2007.0 195

- Malaspina, D., Corcoran, C., Kleinhaus, K. R., Perrin, M. C., Fennig, S., Nahon, D., Friedlander, Y., & Harlap, S. (2008). Acute maternal stress in pregnancy and schizophrenia in offspring: A cohort prospective study. *BMC Psychiatry 8*, 71. http://www.biomedcentral.com/1471-244X8/71
- Maret, S. M. (2003). The prenatal person: Frank Lake's maternal-fetal distress syndrome. University Press of America.
- Matejceck, Z., Dytrych, Z., & Schuller, V. (1988). The Prague cohort through age nine. In H. P. David, Z. Dytrych, Z. Matejcek, & V. Schuller, (Eds.), Born unwanted: Development effects of denied abortion (pp. 53–86). Avicenum.
- Matlock, J. G. (2017). Reincarnation intermission memories. *Psi Encyclopedia*. The Society for Psychical Research. https://psi-encyclopedia.spr.ac.uk/articles/reincarnation-intermission-memories. Retrieved April 16, 2022.
- Matlock, J. G., & Giesler-Petersen, I. (2016). Asian versus Western intermission memories: Universal features and cultural variations. *Journal of Near-Death Studies 35*(1), 3–29. https://doi.org/10.17514/JNDS-2016-35-1-p3-29.
- May, E. C., & Marwaha, S. B. (2014). Glossary. In E. C. May & S. B. Marwaha (Eds.), *Anomalous cognition: Remote viewing research and theory* (pp. 415–422). McFarland.
- May, E. C., & Marwaha, S. B. (2015). The fundamentals of psi. In E. C. May & S. B. Marwaha (Eds.), Extrasensory perception: Support, skepticism, and science: History, controversy, and research (Vol. 1, pp. 1–31). Praeger.
- McCarty, W. A. (2004). Welcoming consciousness: Supporting babies' wholeness from the beginning of life, an integrated model of early development. Wondrous Beginnings.
- Meinlschmidt, G., & Tegethoff, M. (2015). How life before birth affects human health and what we can do about it. *European Psychologist*, 20(2), 85–89. https://doi.org/10.1027/1016-9040/a000 233
- Melton, J. G. (Ed.). (2001). Retrocognition. In *Encyclopedia of occultism and parapsychology* (5th ed., Vol. 2, p. 1305). Gale Group.
- Merlin, S. (2020a). Beyond survival debates: Addressing the source-of-psi problem with the multiple sources

- of psi hypothesis (Part I). *Journal of Consciousness Exploration & Research*, 11(4), 321–336.
- Merlin, S. (2020b). Beyond survival debates: Addressing the source-of-psi problem with the multiple sources of psi hypothesis (Part II). *Journal of Consciousness Exploration & Research*, 11(4), 337–357.
- Moon, C., Lagercrantz, H., & Kuhl, P. (2010). Phonetic learning in utero. *The Journal of the Acoustical Society of America*, *127*(3), 2017. https://doi.org/10.1121/1.3385255
- Moody, R. A. (1975). Life after life. Mockingbird.
- Moody, R. A. (1977). *Reflections on life after life*. Cameron.
- Morris, G., & Baker-Ward, L. (2007). Fragile but real: Children's capacity to use newly acquired words to convey preverbal memories. *Child Development*, 78(2), 448–458. https://doi.org/10.1111/j.1467-8624.2007.01008.x
- Muenssinger, J., Matuz, T., Schleger, F., Draganova, R., Weiss, M., Keifer-Schmidt, I., Goelz, R., Wacker-Gussmann, A., Birbaumer, N., & Preissl, H. (2013). Auditory habituation in the fetus and neonate: an fMEG study. *Developmental Science* 16(2), 287–295. https://doi.org/10.1111/desc.12025
- Neppe, V. M. (2011). Models of the out-of-body experience: A new multi-etiological phenomenological approach. *NeuroQuantology*, *9*(1), 72–83. https://doi.org/10.14704/nq.2011.9.1.391
- Newton, M. (2001). *Destiny of souls: New case studies of life between lives.* Llewellyn.
- Newton, M. (2004). Life between lives: Hypnotherapy for spiritual regression. Llewellyn
- Newton, M. (Ed.). (2009). *Memories of the afterlife: Life-between-lives stories of personal transformation*. Llewellyn.
- Newton, M. (2010). *Journey of souls: Case studies of life between lives*. Llewellyn.
- Ogden, P., Minton, K., & Pain, C. (2006). *Trauma* and the body: A sensorimotor approach to psychotherapy. W. W. Norton.
- Ohkado, M. (2015). Children's birth, womb, prelife, and past-life memories: Results of an internet-based survey. *Journal of Prenatal and Perinatal Psychology and Health 30(1)*, 3–16.
- Ohkado, M., & Ikegawa, A. (2014). Children with life-between-life memories. *Journal of Scientific Exploration*, 28(3), 477–490.

- Packard, P. A., Rodriguez-Fornells, A., Stein, L. M., Nicolas, B., & Fuintemilla, L. (2014). Tracking explicit and implicit long-lasting traces of fearful memories in humans. *Neurobiology of Learning and Memory, 116*(2), 96–104. https://doi.org/10.1016/j.nlm.2014.09.004
- Partanen, E., Kujala, T., Näätänen, R., Liitola, A., Sambeth, A., & Huotilainen, M. (2013). Learning-induced neural plasticity of speech processing before birth. *Proceedings of the National Academy of Sciences of the United States of America, 110*(37), 15145–15150. https://doi.org/10/1073/pnas.1302159110
- Patihis, L., & Younes Burton, H. J. (2015). False memories in therapy and hypnosis before 1980. *Psychology of Consciousness: Theory, Research, and Practice, 2*(2), 153–169. https://doi.org/10.1037/cns000004
- Pearsall, P., Schwartz, G. E. R., & Russek, L. G. S. (2002). Changes in heart transplant recipients that parallel the personalities of their donors. *Journal of Near-Death Studies 20*, 191–206. https://doi.org/10.1023/A:1013009425905
- Peleg, D. & Goldman, J. A. (1980). Fetal heart rate acceleration in response to light stimulation as a clinical measure of fetal well-being. A preliminary report. *Journal of Perinatal Medicine*, 8(1), 38–41. https://doi.org/10.1515jpme.1980.8.1.38
- Penrose, R., Hameroff, S., & Kak, S. (2011). Consciousness and the universe. Cosmology Science.
- Pharaoh, P. O. D., & Adi, Y. (2000). Consequences of in-utero death in a twin pregnancy. *The Lancet*, *355*, 1597–1602. https://doi.org/10.1016/S0140-6736(00)02215-7
- Pizzi, R., Fantasia, A., Gelain, F., Rossetti, D., & Vescovi, A. (2004). Non-local correlation between separated human neural networks. In E. Donkor, A. R. Pirick, & H. E. Brandt, (Eds.), Quantum Information and Computation II. Proceedings of SPIE, (pp.107–117). https://doi.org/10.1117/12.540785
- Polidano, C., Zhu, A., & Bornstein, J. C. (2017). The relationship between cesarean birth and child cognitive development. *Scientific Reports, 7,* 11483.
- Radin, D. I. (2005). Creative or defective. Shift: At

- the Frontiers of Consciousness, 6. https://library.noetic.org/library/magazines/shift-issue-6
- Radin, D. I. (2006). Entangled minds: Extrasensory experiences in a quantum reality. Paraview Pocket Books.
- Rhodes, J. (2015). Body language and birth memories. *Journal of Prenatal and Perinatal Psychology and Health*, 30(2), 92–102.
- Ring, K. (1980). *Life at death: A scientific investigation of the near-death experience*. Coward, McCann & Geoghegan.
- Ring, K. (1984). Heading toward omega, in search of the meaning of the near-death experience. William Morrow.
- Ring, K. (2006). Lessons from the light: What we can learn from the near-death experience. Moment Point Press.
- Roedding, J. (1991). Birth trauma and suicide: A study of the relationship between near-death experiences at birth and later suicidal behavior. *Pre- & Peri-natal Psychology Journal*, 6(2), 145–169.
- Rosman, N. P., Vassar, R., Doros, G., DeRosa, J., Froman, A., DiMauro, A., Santiago, S., & Abbott, J. (2018). Association of prenatal ultrasonography and autism spectrum disorder. *Journal of the American Medical Association Pediatrics*, 172(4), 336–344. https://doi.org/10.1001/jama pediatrics.2017.5634
- Rubin, D. C. (2000). The distribution of early childhood memories. *Memory, 8,* 265–269. https://doi.org/10.1080/096582100406810
- Rubin, D. C. (2006). The basic-systems model of episodic memory. *Perspectives on Psychological Science*, *1*(4), 277–311. https://doi.org/10.1111/j.1745-6916.2006.00017.x
- Sandman, C. A., Davis, E. P., Buss, C., & Glynn, L. M. (2012). Exposure to prenatal psychobiological stress exerts programming influences on the mother and her fetus. *Neuroendocrinology*, *95*, 8–21. https://doi.org/10.1159/000327017
- Schwartz., G. E., Woollacott, M., Schwartz, S., Baruss, I., Beauregard, M., Dossey, L., Kafatos, M., Miller, L., Mossbridge, J., Radin, D., & Tart, C. (2017). The Academy for the Advancement of Postmaterialist Sciences: Integrating consciousness into mainstream science. *Explore*, *14*(2), n.p. https://doi.org/10.1016/j.explore.2017.12.006

- Serdahely, W. J. & Walker, B. A. (1990). A near-death experience at birth. *Journal of Near-Death Studies, 14*(2), 177–183. https://doi.org/10.1080/07481189008252359
- Sharma, P., & Tucker, J. B. (2004). Cases of the reincarnation type with memories from the intermission between lives. *Journal of Near-Death Studies*, 23(2), 101–118. https://doi.org/10.17514/JNDS-2004-23-2-p101-118
- Simpson, M., & Catling, C. (2015). Understanding psychological traumatic birth experiences: A literature review. *Women and Birth, 29*(3), 203–207. https://doi.org/10.1016/j.wombi.2015.10.009
- Solter, A. (2008). A 2-year-old child's memory of hospitalization during early infancy. *Infant and Child Development, 17,* 593–605. https://doi.org/10.1002/icd.570
- Standish, L., Johnson, L. C., Richards, T., & Kozak, L. (2003). Evidence of correlated functional MRI signals between distant human brains. *Alternative Therapies in Health and Medicine*, 9(1), 122–128.
- Standish, L., Kozak, L., Johnson, C., & Richards, T. (2004). Electroencephalographic evidence of correlated event-related signals between the brains of spatially and sensory isolated human subjects. *Journal of Alternative and Complementary Medicine*, 10(2), 307–314. https://doi.org/10.1089/107555304323062293
- Stevenson, I. (1974). *Twenty cases suggestive of reincarnation* (Rev. ed.). University Press of Virginia.
- Stevenson, I. (1975). Cases of the reincarnation type, Vol. I: Ten cases in India. University Press of Virginia.
- Stevenson, I. (1977a). Cases of the reincarnation type, Vol. II: Ten cases in Sri Lanka. University Press of Virginia.
- Stevenson, I. (1977b). Research into the evidence of man's survival after death: A historical and critical survey with a summary of recent developments. *The Journal of Nervous and Mental Disease*, *165*(3), 152–170. https://doi.org/10.1097/00005053-197709000-00002
- Stevenson, I. (1980). Cases of the reincarnation type, Vol. III: Twelve cases in Lebanon and Turkey. University Press of Virginia.

- Stevenson, I. (1983a). American children who claim to remember previous lives. *Journal of Nervous and Mental Disease*, *171*, 742–748. https://doi.org/10.1097/00005053-198312000-0000606
- Stevenson, I. (1983b). Cases of the reincarnation type, vol. IV: Twelve cases in Thailand and Burma. University Press of Virginia.
- Stevenson, I. (1997a). Reincarnation and biology: A contribution to the etiology of birthmarks and birth defects (Vols. 1–2). Praeger.
- Stevenson, I. (1997b). Where reincarnation and biology intersect. Praeger.
- Stevenson, I. (2003). *European cases of the reincarnation type*. McFarland.
- Stokes, D. M. (2007). The conscious mind and the material world: On psi, the soul and the self. McFarland.
- Sudduth, M. (2016). A philosophical critique of empirical arguments for postmortem survival. Palgrave Macmillan. https://doi.org/10.1057/9781 13744095
- Sutton, M. (2017). Hostile awakenings: How birth trauma affects present functioning. *The Australian Journal of Clinical Hypnotherapy & Hypnosis*, 39(1), 15–45.
- Tashaev, S. S. (2007). Study of the unconscious, pre and postnatal individual perception by means of the age regression model. *International Journal of Prenatal and Perinatal Psychology and Medicine*, 19(1–2), 34–48.
- Terr, L. (1988). What happens to early memories of trauma? A study of twenty children under age five at the time of documented traumatic events. *Journal of the American Academy of Child and Adolescent Psychiatry, 27,* 96–104. https://doi.org/10.1097/00004583-198801000-00015
- Tong, F. (2003). Out-of-body experiences: From Penfield to present. *Trends in Cognitive Science, 7,* 104–106. https://doi.org/10.1016/S1364-6613(03) 00027-5
- Tucker, J. B. (2013). Return to life: Extraordinary cases of children who remember past lives. St. Martin's Press.
- van der Kolk, B. A. (1994). The body keeps the score: Memory and the evolving psychobiology of posttraumaticstress. *Harvard Review of Psychiatry,* 1(5), 253–265. https://doi.org/10.3109/10673229 40901788

- van der Kolk, B. A. (2003). The neurobiology of childhood trauma and abuse. *Child and Adolescent Psychiatric Clinics of North America*, 12, 293–317. https://doi.org/10.1016/S1056-4993 (03)00003-8
- Van Heteren, C. F., Boekkooi, P. F., Jongsma, H. W., & Nijhuis, J. G. (2000). Fetal learning and memory. *The Lancet*, 356, 9236, 1169–1170. https://doi.org/10.1016/S0140-6736(00)02766-5
- Van Husen, J. E. (1988). The development of fears, phobias, and restrictive patterns of adaptation following attempted abortions. *Pre- and Perinatal Psychology Journal* (2)3, 179–185.
- Verny, T. R. (2012). The pre & perinatal origins of childhood and adult diseases and personality disorders. *Journal of Prenatal and Perinatal Psychology and Health*, 26(3), 137–163.
- Verny, T. R. (2014). What cells remember: Toward a unified theory of memory. *Journal of Prenatal and Perinatal Psychology and Health*, 29(1), 16–29.
- Verny, T. R., & Kelly, J. (1982). *The secret life of the unborn child.* Delacorte.
- Vitaloni, M., Pulecio, J., Bilic, J., Kuebler, B., Laricchio-Robbio, L., & Belmonte, J. C. I. (2014). MicroRNAs contribute to induced pluripotent stem cell somatic donor memory. *Journal of Biological Chemistry*, 289(4), 2084–2098.
- Wackerman, J., Seiter, C., Keibel, H. & Walach, H. (2003). Correlations between brain electrical activities of two spatially separated human subjects. *Neuroscience Letters*, 336, 60–64. Retrieved from http://www.thatte.netT23WackermannVEPBasedNeuralInfoTransfer Verify.pdf
- Wade, J. (1996). Changes of mind: A holonomic theory of the evolution of consciousness. State University of New York Press.
- Wade, J. (1998a). Physically transcendent awareness: A comparison of the phenomenology of consciousness before birth and after death. *Journal of Near-Death Studies 15*(4), 249–276. https://doi.org/10.1023/A:1025026626098
- Wade, J. (1998b). Two voices from the womb: Evidence for a physically transcendent and a cellular source of fetal consciousness. *Journal of Prenatal and Perinatal Psychology and Health*, 13(2), 123–147.

Zingrone, N. L. (2010). Glossary. In S. Krippner & H. L. Friedman (Eds.), *Debating psychic experience* (pp. 215–219). Praeger.

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