Nesting as Imprint of Bonding and Attachment

A Phenomenological Exploration of Healing Gestures in Prenatal and Birth Process

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ABSTRACT

This paper explores the phenomenology of nesting of the human embryo in the uterine lining as a gesture in early development. Historically, nesting has been described as "implantation." This paper describes "nidation" as an alternative to "implantation." Phenomenologically, these two gestures can be described in metaphors of war versus conversation. Van der Wal describes the gestures morphologically and embryologically, and gives interpretations through his unique Goethean perspective. White follows his exploration of how these early gestures are seen in prenatal and perinatal somatics, focusing on how practitioners can work with them to heal earliest trauma or how they reveal inherent health. Taken together, the perspectives of Van der Wal and White create an additional therapeutic choice for practitioners who work with these earliest layers of experience.

Keywords: phenomenology, prenatal and perinatal somatics, birth psychology, nidation, implantation, embryology

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> ***...how does awareness occur if the embryo/fetus has only primordial brain development?***

Nesting: More than a Morphological or Embryological Process?

In this paper, we address the use of two terms that express the phenomenon of nesting of the human embryo in the therapeutic prenatal and perinatal process, as well as their gestures and developmental impact: *nidation* and *implantation*. The term *nidation* indicates a natural progression we have observed in embryological and morphological processes whereby the embryo hatches and gently comes into contact with the mother.[1] The term *implantation* is commonly employed in prenatal trauma therapy, and is used in textbooks on human embryology. It is described as a survival strategy

1. In this paper, we use the term "mother" to indicate the gestational parent, and will use "she/her" pronouns.

"The basic premise of prenatal therapy is that the prenatal human being (both embryo and fetus) has experience and awareness of what happens during it's intrauterine growth and development."

of the conceptus where it "invades" the endometrium. Both descriptive expressions of nesting are relevant for birth psychology. However, until today, there has been no teaching or embracing of a healthy nesting connection of the parent and conceptus in prenatal and birth therapy that accurately describes a healthy embryological bonding and attachment. We observe that nesting is described only as implantation and is assessed by the gesture of burrowing into the uterine wall with the forehead. Nidation is much gentler, and connotes receptivity on the part of the parent, and trust on the part of the embryo as energetic gestures where the embryo's action is to come into relationship with their backside, with the mother (uterine lining) spooning with them. We are excited to add this action of receptivity and trust to the therapeutic lexicon and seek to include nidation and implantation as therapeutic options when working with early experiences. In some embryology textbooks, the phase before the actual nidation/implantation, in which mother and conceptus interact biochemically with each other in preparation for the actual nesting, is called ad-plantation.

Nidation (or implantation) is the process by which a few days-old human embryo (approximately between 3.4 and 6.7 days) implants into/connects with the lining (endometrium) of the woman's uterus. Normal development during this vital sequence includes the hatching of the embryo, now grown to a sophisticated cellular matrix of a *blastocyst*, that makes contact with the uterine lining and makes a home there. The new being must find nutrients to survive and also encounters the mother's immune system. So, it is a vital time and a period in which many new beings do not survive. However, successful nesting, which will be described later in this paper, includes making a home in the uterus, sinking into the uterine wall to differentiate cells, making protection (amnion) and nourishment (yolk sac), and then creating the placenta to connect with the parent's blood to continue their life journey.

In Assisted Reproductive Technology (ART) and/or artificial fertilization techniques (in vitro fertilization or IVF, and/or intracytoplasmic sperm injection or ICSI), the sufficiently grown and matured embryo of about one week is returned to the uterus through a procedure called embryo transfer (ET). It is assumed that this transfer will be followed by the acceptance of the embryo by the mother's body, thus enabling the embryo to nest in the endometrium. However, this embryo transfer is still risky in assisted reproductive techniques; the current success rate of these techniques is almost entirely determined by the pass rate in which the embryo can nest successfully. It is believed that under "normal" conditions, only 60% of successful human conceptions successfully implant in the endometrium (Krause, 2022; Jarvis, 2020).

Subsequently, in early human embryonic development, another crucial moment occurs when a significant percentage of embryos again fail to continue development. This phenomenon of human embryo individuation occurs around the third week and is associated with the formation of the primitive streak and third germinal layer (*gastrulation*). Add to this the fact that only a limited percentage of human conceptions are biologically successful in vivo, and it is evident that the question arises about the efficiency of human reproduction for many people. The nesting process is a developmental crisis or threshold moment that could be the source of psychological disturbance if the nidation does not occur problem-free. If nesting occurs straightforwardly, it is the moment of healthy bonding and attachment, and an early healthy marker of the relationship. If implantation is challenging, it is likely due to various physiological reasons that are impersonal, yet parents and babies take them very seriously. These patterns will be explored toward the end of the paper.

The current article is the joint performance of an embryologist and a prenatal therapist. The basic premise of prenatal therapy is that the prenatal hu-

man being (embryo and fetus) has experience and awareness of what happens during its intrauterine growth and development. Without this premise, prenatal treatment and counseling in later life about prenatal events that may be experienced as unpleasant loses all ground. On the other hand, the embryologist provides insight into the physical and morphological substrate of an embryo's prenatal existence. In recent decades, this branch of science has been repeatedly questioned about the possibility of consciousness and experience before birth. For example, how does awareness occur if the embryo/fetus has only primordial brain development? In the second and third trimesters of human pregnancy, it is plausible that primitive nerve and brain substrate are physiologically active, and so, there could be perception, awareness, and experience, albeit in rudimentary form. The latter, however, is doubted by many morphologists and psychologists as far as the first semester is concerned, when there is still an embryo, which is considered to be brainless, and thus unconscious. Therefore soul, or consciousness and experience, should be excluded at this stage.

This issue of possible consciousness or non-consciousness often plays a role in discussions about the time limit for abortion. Consequently, many believe that in early human embryonic states, some form of not yet fully functioning human consciousness and experience must exist. On the other hand, many practicing therapists in the field perceive that some children must have had obvious traumatic experiences at the time of important thresholds and moments in their prenatal development, such as their nidation/implantation. Thus, there is a philosophical dichotomy in this context. This article aims to build a possible bridge between the two regarding nidation and implantation.

The embryologist who co-authored this article represents a less common approach to embryology and morphology, namely that of (Goethean) phenomenology (Bortoft, 1996; Zajonc, 1998). Phenomenology is a methodological scientific approach that continues to influence psychology and psychiatry alongside the usual causal approach. For example, in psychiatric treatment and analysis, it is acceptable to enter the patient's experience and perception without having to search for the cause of the biographic disturbance or trauma involved in the particular case. Even without knowing or being able to analyze what caused a traumatic personality disorder deeply, one can still properly treat and support the patient in learning how to live, or cope with, the bug in his or her personal experience.

In biology, however, the phenomenological method is less recognized, and much less applied in the search for the **meaning** of the morphological phenomena in question. In Goethean phenomenology, the researcher (in this case, the morphologist and embryologist) is looking not only to explain the formation processes at play but is more concerned with **understanding** and comprehending **the form**. The response to the question "Why does it look like that?", which is, after all, the fundamental question of the morphologist, shifts from "**because of**" (e.g., which tissue processes or gene codes could explain the process in question) to "**what purpose**" (what is expressed in the form and form process in question; in short, what does it mean?).

The dichotomy indicated here is directly related to the pre-scientific view of the researcher regarding the existence of, or relationship between, mind **and** body. For many therapists, psychologists, and psychiatrists, the mind (often referred to as consciousness, which is a *pars pro toto*) is an activity and, thus, a product of the brain and is therefore considered a bodily process. For others, the mind is a non-bodily realm, an experience of so-called first-person reality, which manifests itself in prenatal development in the formation of the body, including such subprocesses as the wiring and architectural networking of the brain. In *The Embodied Mind*, psychiatrist Thomas Verny (2023) shows that nothing about the known morphological processes in the body during prenatal development stands in the way of seeing embodiment as an active process or dimension that manifests and expresses itself in the body's formative processes. These include the formative processes of the brain, and are therefore not exclusively brain-associated. To paraphrase the philosopher Rumi (Mewlana Jalaluddin Rumi, 1207-1273) on this occasion: "The body developed out of us, not the other way around" and "We created the body, cell by cell we created it," one could state: "We created the brain and nervous system and its wiring, nucleus by nucleus, nerve by nerve, we created it" (All Poetry, 2024). This approach is theoretically in line with the concepts of human embryologist Erich Blechschmidt (1904-1992), who, already in the 1960s, did not interpret the formation processes (morphogenesis) of the hu-

man body as being caused by something like cells and genes, but instead saw these processes as an expression of the human psychosomatic organism. According to Blechschmidt, no action could ever be performed physiologically or psychologically in later life cycles if this action or operation had not first been pre-exercised during the morphological process (body formation) (Blechschmidt, 2012). Soul or psyche, Blechschmidt interpreted, are not gradually added to the body during prenatal development; instead, we are from the very beginning a being of what could be now termed mind and body, and the primary activity of the mind is body formation (Van Der Wal et al., 2017), which is also referred to as the embodied or embodying mind (Menzam-Sills, 2021; Verny, 2023). The English psychiatrist R. D. Laing can be cited: "Is it possible for us cells, before and after the formation of neural tissue in particular, to reproduce in later phases of the lifecycle transformations or variations of our first experiences? Can our prenatal patterns of experience function as templates for some of our patterns woven into the complex knit of postnatal design?" (Laing, 1976).

For the phenomenological morphologist, here lies the possibility of interpreting the forms and processes of formation in the human body as **behavior**, or as a somatic language. Behavior can be interpreted as **gesture**, a form, or a morphological process with a certain sense and meaning. As seen in Goethean phenomenology, the gesture is thus a transdisciplinary category because it can manifest morphologically, physiologically, psychologically, and probably mentally and socially. For example, the formation of arms and hands can be seen as a gesture in which first embracing and reaching out are pre-exercised morphologically in the formation process, making it possible for the same embracing and reaching out to be performed physiologically later in life. We can extend this model of performance to ask if the gestures of embracing something or reaching out to someone are also psychological gestures and skills.

Another example is bonding and attachment. These are, of course, biological and psychological phenomena at first glance. But does the newborn not have to be unbonded in order to be able to connect all the more intensely with the mother physically, for example, in the gesture of coming home to the mother's breast? Perhaps such fundamental soul processes as bonding and attachment are morphologically pre-exercised during an earlier phase of prenatal development.

This brings us to the topic of nesting or nidation. This article will attempt to describe nesting phenomenologically as a gesture of attachment and bonding, with the proposition that nesting is more than just a morphological or biochemical process, but actually can be described as a gesture of interaction that lays the groundwork for subsequent physiological, psychological, and possibly even sociological manifestations of the phenomenon, i.e., a gesture of attachment and bonding. So, in this article, the embryologist will first describe nesting as a kind of physical process of bonding, and the therapeutic co-author will then explore how any failure or dysfunction of biological/morphological attachment may manifest itself in dissociated behaviors of the young child and, perhaps, even adults.

Nidation as Morphological Gesture: War or Conversation?

Nidation, or nesting, occurs at the moment when the human embryo attaches itself to the lining of the uterus or endometrium. This is also the moment when physiological pregnancy begins. Usually, the average time of nidation is five to seven days after conception, but still, there is no definite time frame for implantation. It can probably occur as early as the third day of human development and, at the other extreme, is sometimes assumed to occur as late as eight to nine days. The human embryo must be at the *blastocyst* stage for implantation to occur correctly. In the embryo, the first important differentiation of cells has taken place, forming a central group of about eight to 10 cells (called the *embryoblast* or *inner cell mass* ICM), surrounded by a mantle of about 100 to 120 cells that form the *trophoblast*. This trophoblast will later develop into the placenta and membranes of the prenatal body. Between the two groups of cells, there is a first primitive body cavity called the *blastocoel*. See diagram (Figure 1). The whole consists of about 100 to 150 cells.

The *trophoblast* or outer sheath (also called *outer cell mass*) is the substrate of the embryonic body that will interact with the endometrium to achieve nidation in this mucosa. This part of the embryo is often mistakenly referred to as extra-embryonic or as an appendage. In this view, the embryoblast

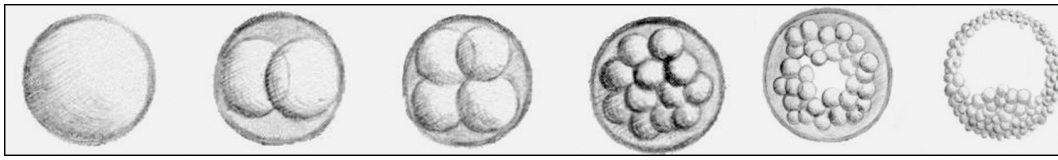

Figure 1. *Human development in the first week. Far left: zygote or unicellular stage; fourth figure: morula stage, multicellular body of eight to 64 cells. Far right: blastula or blastocyst with embryoblast and trophoblast (Source: Appenzeller, 1976)*

is considered the substrate for what is usually later considered the embryo proper. The trophoblast (and the placenta derived from it) is then considered a secondarily added structure, also referred to as adnexa and/or secundinae (Van der Wal, 2007). From a phenomenological perspective, this interpretation is invalid: the six diagrams in Figure 1 represent the complete human embryo or conceptus at each stage and, therefore, the human body. In this view, the blastocyst is not something secondary or added to an actual or proper embryo. The interpretation of these phenomena is immediately related to how one considers the entity brought about by fertilization, i.e., the *zygote*. It is still quite common to consider the zygote a fertilized egg, the product of the fusion of a sperm cell with an egg (Wikipedia, 2024). However, in the phenomenological view of both authors, a zygote is **not a cell**; a zygote is a single-celled **organism**, and therefore genetically and biologically a human body. After a few days, the organism appears as the *blastocyst*, which therefore in this view is not the product of cell multiplication, but the timely appearance of the human embryo, which is now (sub)divided into two categories of cells through the process of differentiation. The phenomenologist sees no reason to speak of a proper embryo with additional embryonic appendages, neither in the blastocyst stage nor in the subsequent embryonic phases.

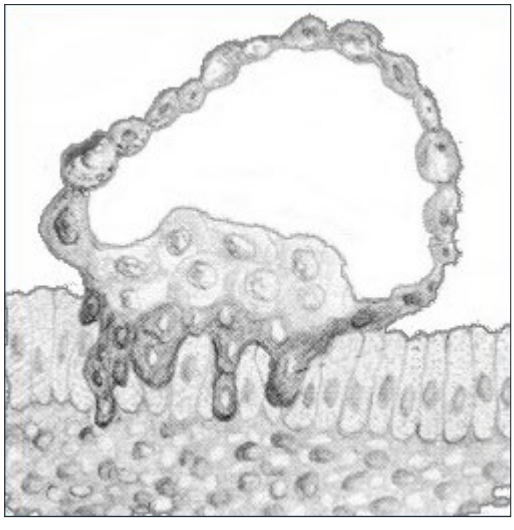

Figure 2. *(Source, Appenzeller, 1976)*

It is beyond the scope of this article to enter into a discussion about zygote as organism or zygote as cell. In our opinion, it is the embryo that will have to implant itself. The trophoblast therefore also belongs to the physicality of the embryo, and is part of the body of experience of the embryo. We realize that this interpretation is a paradigmatic choice, but want to make clear that the assumption that the human embryo is implanting itself does not contradict actual biological facts. When prenatal therapy assumes that nidation can be a moment of experience for the developing human being, it implicitly assumes that the blastocyst **as a whole** is currently the human embryo, and not just the central part of it, namely the embryoblast.

Both the embryoblast and the trophoblast (here, for understandable reasons, these two terms are preferred instead of the terminology of "inner and outer cell mass," which is widely used in embryology today) develop from the morula, the multicellular body that manifests itself after three to four days. The embryoblast is derived from the central part of the morula (the embryonic body at stake), while the trophoblast is derived from the periphery, the outside of it. When a cavity develops in the morula (the *blastocoel*), the embryoblast becomes eccentric (Figure 2).

Thus, embryology textbooks distinguish between the embryonic pole where the embryoblast is situated, and the ab-embryonic pole (Langman, 1995). This gives the embryonic body a basic spatial orientation, also known as the body axis. From the

subsequent differentiations of tissues, the body cavity and organs, it can be deduced that the body axis, which can be conceptualized through the embryonic and ab-embryonic poles of the blastula, morphologically corresponds to what is later regarded anatomically as the *dorso-ventral* axis of the body (Van der Wal, 2002). The embryo is given a back and a front, so to speak. It is clinically known and confirmed that implantation must take place with the embryonic pole facing, and in contact with, the endometrial epithelium. Consider the arrow in Figure 2.

At the border between embryoblast and trophoblast, another body cavity will develop very quickly, more or less in opposition to the blastocoel that appears within the first week of development (see above); this is the future *amniotic cavity*. In this area, connective and vascular tissue will later develop that will provide a connection between the intra-embryonic and extra-embryonic dimensions of the prenatal body, and is usually referred to as the connecting stalk. In this manner, the substrate is formed for what will later be known as the umbilical cord. During the first two to three months of prenatal development, this zone of connection will relatively move or be repositioned to the front ventral side of the so-called embryo proper. This explains the clinically well-known phenomenon that when an embryo implants with the embryonic pole forward, i.e., directed away from the endometrium, the placenta is then directed not towards the uterine wall, but towards the uterine lumen or cavity. Unfortunately, miscarriage and premature birth are inevitable consequences of this disorientation.

To summarize, in the blastocyst, or one-week-old embryo, body orientation first manifests. In view of the later anatomical and morphological relationships in the prenatal body, this orientation can therefore be regarded as a first indication of the *dorso-ventral* body dimension. It should be emphasized that this is a phenomenological finding. Of course, the embryo does not yet have the anatomical body axis, with a belly at the front and a back at the back. To properly understand what is described here, we must realize that the dimensions front and back are more than anatomy, and can also be understood qualitatively.

At our front, we have a completely different orientation and interaction with the world than at our back. Moving forward is phenomenologically of a totally different quality than moving backward. Moving forward usually means moving in a focused way, moving towards something – the goal is in front of us. Moving backward is another quality: one has to let oneself move, more or less in the direction where we are uncertain what will occur. With our back, we have a different relationship or interaction with our environment and the world than with our front.

So, it is suggested here that the embryo has to align itself backward towards the uterine wall, which is towards the mother, in order to nest. In this way, a completely different quality of encounter and interaction between child and mother takes place than if there were a forward implantation into the maternal uterine mucosa. In the former case, there would be a question of letting oneself go backward to the mother and feeling received there, while in the latter case, there would be much more confrontational interaction between mother and child. In phenomenological methodology, this means that one must realize the quality of the gesture with which mother and child meet at the time of implantation. Perhaps this is also related to whether in one case – a forward confrontation – one prefers to speak of implantation, and that in the other case – a backward reception – the term nidation is more appropriate. Meeting: confrontation or dialogue? To make this assessment, it is necessary to consider which kind of biological processes are needed for successful implantation.

What processes take place between the trophoblast and the endometrium? And how relevant is the character of these processes, or gestures, in light of the question backward or forward? It is now generally accepted that the mother, the womb, or (further reduced) the endometrium is not a passive target, nor that the child, the embryo, or (further reduced) the trophoblast is the active substrate in this interaction. It is now common knowledge that selection takes place *on the mother's side*. Not every embryo is accepted and admitted. That is why, as noted previously, it could be reported that the success of the embryo transfer process is also determined by the maternal organism, and is in fact overridden or thwarted in Artificial Reproductive Technology. Attempts are made to make the maternal organism more receptive through all kinds of manipulations and hormonal interventions. Also, the *hatching* of the embryo is artificially provoked, under the assumption that this might fa-

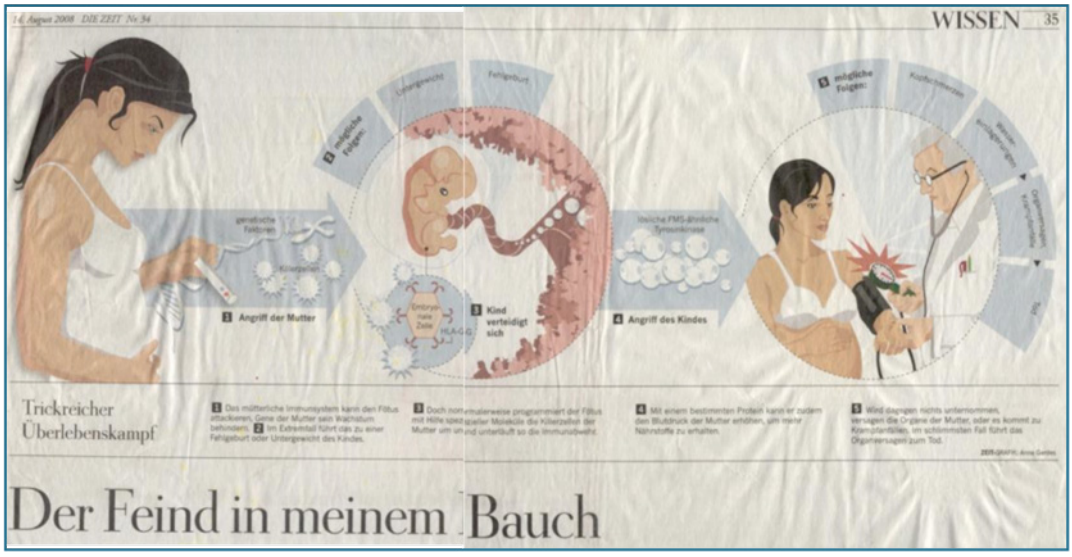

Figure 3. *The enemy in my belly (Source: Hauenstein, 2008)*

cilitate nesting. This has to do with the so-called *zona pellucida* or eggshell that encapsulates the egg cell when it is released from the ovary. At the moment the first and only sperm cell fuses with the egg, the *zona pellucida* undergoes a total biochemical change. In a few seconds, due to a burst of zinc from the egg cell, the *zona* is transformed into biochemical armor that prevents the entry of a second sperm cell. This is known as the *zona* reaction (Gilbert, 2000), and is assumed to be a necessity because in humans, an egg cell fertilized by two sperm cells (called polyspermy) cannot develop, with one very, very rare exception (Gabbett, 2019). In order for the embryo to come into contact with and interact with the endometrium as a blastocyst, the *zona pellucida* has to be dissolved. It is easy to assume that the maternal organism plays an active role in this process by means of enzymes produced by the endometrium cells. To increase the chances of embryo acceptance by the maternal organism, the *zona pellucida* is removed chemically, mechanically, or with a laser in many countries, as a preventive measure to promote successful implantation. Incidentally, it has still not been demonstrated with obvious statistical clarity whether in vitro *hatching* indeed increases the chance of successful nidation/implantation. What remains is that apparently in vivo, the *zona pellucida* is rendered harmless in an interactive process between mother and child.

Conventional immunology, supported by modern immunological genetics, describes implantation primarily as a confrontational process that can be compared to the cellular and chemical interaction that takes place in the body of a human receiving an organ that actually comes from a genetically alien donor. In that case, a genetically determined rejection reaction occurs. It is known that the degree of genetic matching between a donor and an organ acceptor determines the likelihood the donated organ will be accepted. For most transplanted organs, it is crucial for the recipient to take immune-suppressive medication throughout their life. Such medication is designed to prevent or reverse the body's natural immune response, which can vary depending on the specific organ transplanted. The most significant side effect of immunosuppressants is an increased risk of cancer, and heightened vulnerability to infections caused by external microorganisms.

The modern immunological-genetic model of pregnancy assumes that a tissue strangeness, a genetic mismatch, arises between the maternal and embryonic organisms that must be fought out. In these kinds of descriptions, it is not uncommon to talk about the child attacking the mother with what are referred to as killer cells, and a response and defense to that on the part of the mother. In this view, pregnancy involves a nine-month period

"Is implantation an aggressive penetration of the embryo in defiance of the maternal defenses, or is it a biological process of giving each other space and the right to exist?"

of a militaristic exchange and confrontation of immune substances – in other words, a kind of genetic war (Figure 3). It should be noted here that these types of models are the foundation of the growing medicalization of pregnancy and birth today, where pregnancy is often viewed as a pathology or disease.

This more recent interpretation of these events has overshadowed an alternative perspective that emerged in the 1980s, suggesting that a kind of immunological sanctuary or privileged site develops at the local level. In this way, the maternal organism creates a kind of space in which another genetically foreign tissue or organism can thrive (Thellin, 2000). Such immune-privileged sites are more well-known in biology, and certainly in the human body (like the blood-tissue barriers that exist in the eyes, central nervous system, and testicles). More recently, it has been discovered that fetal body cells can persist in the mother's body without always triggering immune or antigenic reactions, as seen in the rhesus antagonism. These fetal (stem) cells have been found in various tissues and organs in the mother's body, where they remain without being rejected or immunologically disabled (Zenclussen, 2007). Have they escaped from the enemy, or have they found a safe haven?

Apparently, therefore, one can describe the processes in question not only in the more aggressive militaristic terminologies of genetics and immunology, but also in the more phenomenological terminology of encounter, interaction, and dialogue. *It's all about gesture. Is implantation an aggressive penetration of the embryo in defiance of the maternal defenses, or is it a biological process of giving each other space and the right to exist?*

A similar kind of dialectic also plays out in the choice one makes to describe and understand the fertilization process. For example, is it a sperm cell that penetrates the egg cell (and before that the *zona pellucida*)? Or is it also a biochemical dialogue of the exchange of substances between sperm and egg that ultimately leads to a sperm cell fusing with an egg cell? (Van der Wal, 2007) **War or conversation**? So, it really is a paradigmatic or pre-scientific choice of position, and it can be a lived experience in the person based on physiological need, and is therefore the basis for the earliest experience of bonding and attachment. Both approaches can be considered truthful or right, and each in its own way leads to opportunities for therapeutic intervention.

Interlude: The Gesture of Motherhood

In many Waldorf School kindergartens and classrooms, it is common to find a reproduction of Raphael's *The Sistine Madonna*, an original representation of Mother Mary with her child Jesus. Certainly, in original Christian medieval icon

Figure 4. *The Sistine Madonna by Raphael*

paintings, Christ was either depicted on Mary's lap or, as in the present painting, carried by his mother while facing forward, his back leaning into her, apparently oriented toward what lies *in front*, what lies ahead, toward the future. This is the image of the mother as a physiological-psychological-sociological support or backup for the child, standing behind him and mediating between, perhaps, the spiritual dimension from which we come (or may come), and the future that awaits us on this earth in the realization of our biography. This image obviously does not apply to people who hold the view that children are product of fusion of sperm and egg, and that children belong to us and are made by us. Of course, the image presented here by Raphael is much more in line with Kahlil Gibran's words in *The Prophet* (1923). The first sentence of the chapter "Speak to us about children" reads: "Your children do not come from you, they come through you. And although they are with you, they do not belong to you" (Gibran, 1923).

Anyone who studies Raphael's painting carefully – leaving aside the painted secondary figures (which is permitted because, according to experts, they were added later, as were the large curtains) – can see that Mary is striding forward from a dimension behind her characterized by dozens of baby faces with clearly calling or singing mouths. The mother, as a support, allows the child to become himself. In the context of Christian symbolism, the mother descends from heaven to earth. From this perspective, isn't it remarkable that human implantation can also be seen as a gesture of entrusting oneself to the parent(s), and thus as entrusting oneself "backwards." Even the gesture of birth, which about 75% of infants perform from the occipital position, can be seen as a movement of deflection from the mother's womb so as to be oriented primarily forward, toward the world. Of course, the so called expulsion phase of birth, which is usually interpreted mechanically as pushing the child out, can just as well be seen as the image of the mother as a backup, helping the child to be born out of itself. A phenomenological understanding of the **gesture** of birth could be: "To be born out of oneself and to leave behind where one can no longer be at home." Perhaps this is going too far, and some readers may find this image too poetic and unscientific, but for the phenomenologist, again, the gesture is the key to understanding. Of course, each reader is free to choose a supposedly scientific image of pregnancy, in which mother and child face each other like immunogenetic enemies. There is, however, also ample biological evidence for the other image – that of the mother giving birth to the child, and also providing the child with the necessary support – so, actually taking a step back. Birth can be interpreted as the gesture of dying, and of development (van der Wal, 2007b).

Key Findings from Part One – Phenomenological Morphological Considerations of Nesting

Phenomenologically, nesting can be described as a critical moment in human embryonic development, because only with successful nidation/implantation into the endometrium can further development proceed. Estimates that the nidation process is unsuccessful range from 40-60% of all (human) conceptions. There are two theoretical models that describe the gesture of nesting. The more "aggressive" Darwinian model of **implantation** is a kind of defensive reaction of the maternal organism, followed by a defense and attack reaction of the unborn fetus. Alternatively, there is **nidation**, described phenomenologically as a process of acceptance and dialogue, in which the maternal organism actively determines whether nesting can be successful or not. In this case, nidation is considered and described more as a nesting of the embryo in an accepting free space created by the maternal organism in the endometrium. While the former model of nesting could be described as confrontational, the latter model involves a process of dialogue, exchange, and mutual acceptance. In short: *war or conversation*? In other words, a backward nidation in which the concept of backwardness should also be interpreted as a quality, as a gesture. Along this trajectory, it may be possible to identify and recognize a challenging or less successful nidation/nesting process in later life cycles, reflected in traumatic experiences of diminished trust and fundamental insecurity in relationships. This will be further explored by the trauma expert in the remainder of this article.

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Birth Psychology, Prenatal and Perinatal Somatics, and the Gestures of Nidation and Implantation

Analysis of the impact of the prenatal and perinatal period on the psychosomatic development of humans began a century ago (Rank, 1924). Over decades of experimentation and growth (White & Rhodes, 2014; Gouni, Janus, Verny, Brekham, Turner, Turner, Rakovic, Janov, Odent, & Sovilk, 2022), practitioners in the fields of psychoanalysis, psychology, and prenatal and perinatal somatics have developed tools and skills to recognize, reach, and work with our earliest layers of experience. Among these layers is the experience of nidation/implantation that has been described above. As mentioned, nidation is the first touch between the parent and incoming soul in a gesture of backwardness and trust. This soul, defined as spirit and body (van der Wal, 2013), has already moved through the stages of preconception (encountering the family field), conception, early cell creation, and hatching. Each of these gestures in early development is significant and plays a role in human experience as an early implicit somatic memory.

Over many years, the nidation/implantation gesture has been taught as a burrowing gesture, often fraught with danger, as the embryo, hatched from its protective covering of the *zona pellucida*, must make its way to the wall of the uterus and there, make a home. If the uterus is welcoming and its lining rich with nutrients, the bonding and attachment sequence is easy, and the being perceives it is welcome. A sense of belonging and nurturing arises here, and is named as a memory, a layer of experience. But many times, the uterine wall is challenging for the conceptus to create a home for a variety of reasons, including endometrial conditions, previous surgeries that injured the tissues, fibroids, previous births (or deaths, such as miscarriage, stillbirth, or abortion). The uterine tissue also has its own experience. So, the embryo feels like it must burrow into the lining for survival. Its life feels precarious. Alternatively, the embryo may have an issue with its ongoing cellular development, which causes its progression to cease. This is one of those threshold moments in human development where some babies don't continue with pregnancy. They return to the spiritual world from whence they came.

The gesture of burrowing or nesting is what prenatal and perinatal therapists call Embryonic Rising, and is what the authors now refer to as implantation. Embryonic Rising as a movement or gesture in prenatal and perinatal therapy has been passed down through the lineage of teachers from William Emerson to his students Ray Castellino and Karlton Terry. Castellino included it in his foundation training, and this was continued by his student Myrna Martin. We have understood it after witnessing adults recreate their early experience by making a nest as a representation of the womb, and coming into relationship with the womb forehead first. As prenatal and perinatal somatic practitioners, we are trained to follow the posture of the adult, seeking information about their early life, and coaching them to feel into a bow of the head as the first somatic sign for implantation.

Embryonic Rising [2]

Collaboration with embryologists reveals that healthy embryogenesis begins with the embryo coming into relationship with the mother through the back side of the body (see discussion above). This is a healthy gesture of the conceptus. Indeed, it is a representation of healthy relationships, especially bonding and attaching, which begin with trust, receptivity, and yielding. Yielding begins a healthy developmental sequence in humans (Cohen, 1993). In prenatal and perinatal trauma, we often see bracing instead of yielding. We suggest a different gesture than the bow and connection with the forehead be put forth in prenatal and perinatal somatics and birth psychology. Instead, we suggest that coming into relationship with another as a yield, representing holding, spooning, connection, and loving embrace, now be taught to practitioners as the healthy gesture of implantation, and that they also learn Embryonic Rising to recognize when nidation has been difficult, which is often the case.

2. Gestures performed by Kate White and Margaretta McIlvaine as part of the Integrated Prenatal and Perinatal Dynamics training, filmed at the Bridge Between the Worlds Retreat Center.

Gesture 1 Embryonic Rising
Practitioner makes contact with the back of the client and waits. This is a process that takes place after the client has stated their intention. The practitioner may suggest the nesting as part of the process, or it simply arises spontaneously.

Gesture 2 Embryonic Rising
Practitioner moves their hand up to the upper back of the client and waits with the other hand for the head to bow.

Gesture 3 Embryonic Rising
Practitioner meets the client's forehead as they bow.

Gesture 4 Embryonic Rising
Practitioner follows client as they make their way to the floor, the perceived uterine wall of their parent.

Additional energetic patterns of the first connection with the mother may be an overactive immune response from the mother, where the conceptus feels threatened, including RH incompatibility. In this case, the early energetics are where the home is not safe, nor is connection. Adults can find home threatening, and finding a safe place to live is part of their constant lived experience. Some adults may have actual consistent threats in their environment, such as stalkers or perceived or real environmental threats. There are often conditions in the womb that make connection hard, such as a scarred endometrial lining from surgeries or other injuries. Finally, twin loss often happens here, with one twin not finding safe harbor in the womb. Twin dynamics are not addressed in this paper, but are an important layer of early experience.

Conclusions: A New Early Gesture for Prenatal and Perinatal Somatics

We propose that practitioners become aware of both patterns: war and conversation. Prenatal and perinatal somatics is based on an implicit somatic pattern language. The practitioner needs to learn the language that shows up as gesture, posture, bodily states, and metaphors for experience (i.e. war or love, struggle or dance). The prenatal and perinatal therapist is fluent in body empathy, has experienced the layers of human development, and can help heal early ruptures that happen at each level.

If the nesting experience was challenging, the practitioner may help the client make sense of their experience, and create conditions for healing. It is easy to look around at our world today and see how aggressive experiences in early life can play out in modern politics and our lived experience. Often, what happens in these early stages of development is very impersonal. The uterine lining may be challenging because of surgeries, other conditions, improper nutrition, or previous miscarriages. These challenges are often unintentional, and yet parents and children may take these early experiences quite personally.

The implications of understanding these two gestures as the earliest experiences of bonding and attachment are exciting. Early ruptures, boundary issues, and feelings of welcome, acceptance, and connection may be represented in nesting. In prenatal and perinatal somatics, we often say that bonding and attachment starts before conception, with the parents imagining their baby as a twinkle in their eyes. Parents who long for a child are already bonded to the idea and fantasy of their baby. In birth psychology, we can also see how spirits sense their parents at conception, and choose where they incarnate. We ask adults if they have the sense that they chose a human life. This early exploration is a dynamic of preconception/conception. At the moment of conception, we connect with a single-celled body. After about a week, that body has become a multicellular blastocyst. Then, we hatch out of the *zona pellucida*, and via nesting, we find our home in the uterine wall. We create our body there, in connection and relationship with our mother. By exploring the preconception/conception imprint, we help repair feelings of not being welcomed, or worse, not wanted. Is it possible that early challenges in the womb might be due to physiological issues not at all related to whether or not the parents want a baby? Is it conceivable that the adult seeking healing can find the somatic felt sense of connection through dialogue (nidation), or that the practitioner can help to presence and create new conditions so that attachment (connection) happens for the adult, and new awareness can arise?

The new gesture and process supported by the practitioner will be to make a nest for the person to approach as they will, not with the agenda of the practitioner, as in embryonic rising. In this nest, we consciously bring the intention of the person seeking healing. For example, people seeking healing and wholeness in life now often want more peace, acceptance, love, connection, energy, capacity, and so much more. We find a way to represent these wishes in the nest, often with pillows or other physical representations. We wait for the person to follow their own body memory. It could be that they come to the nest on the floor in a slow way, and find their connection on their back, in a curl, or through a burrowing gesture of their forehead. Our job is to simply follow, and hold the intention of our person so that they will find their way in connection with the human blueprint we hold as practitioners, and that we consciously imbue in the therapeutic space. As practitioners, we co-create conditions for healing with the training we have had, and the capacity of the person seeking resolution.

From the baby's perspective (as in the baby layer in the adult client, or the actual baby, prenatally and antenatally), these conditions may equal:

- I am not wanted
- I am not welcome
- Making a home is hard
- I may not survive if I stay here, but if I move, I may die
- I need to hang on for dear life
- My survival and home are in question and linked

How would it be if we could heal and further support this early place from a physiological, morphological, psychological, and spiritual perspective? The early layers would then be filled with messages such as:

- I am wanted
- I am welcome

- I can relax here
- I am safe
- I can grow here
- I am well received
- I belong here
- I can easily make a home
- I can trust others
- We can grow together

As a profession, we can expand our wisdom around nidation, and teach both approaches.

■ ■ ■

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