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# Openness and Protection: A Philosophical Analysis of the Placenta's Mediatory Role in Co-Constituting Emergent Intertwined Identities

Marjolein Oele Post-Peer Review Version

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Nature itself provides us with some teachings about what hospitality could be in our time. For example, if a woman can give birth to a child, and even to a child of another gender, this is possible because, thanks to the two, a place in her is produced— one could say in Greek *gignestai*— that does not belong to the one or to the other, but permits their coexistence: the placenta. Neither the woman nor the fetus could survive without this organ that secures both the existence of each and the relation between the two (Luce Irigaray, "Toward a Mutual Hospitality").1

#### I. The Placenta: An Initial Encounter

The placenta seems to be an afterthought – much like the term for its emergence during delivery – afterbirth – seems to indicate. What is central is, after all, the baby and its health. It was also this way for me during the deliveries of our two children. Presented to me in a clinical metal bowl, I saw the placenta as an afterthought to the transformative process of birth.<sup>2</sup> I did not insist to keep it – not even a part – although somehow intrigued by it, I urged that a picture be taken of it. Of *it*? The neutral, abstract term I use chills and surprises me. For, somehow I have felt all along that an injustice has been committed to this being, these beings, that have sustained me, my (and in fact: all) children in utero.

My own impression as a mother<sup>3</sup> speaks to the shocking effect that the placenta can undergo such *radical transformation* from serving as life's most crucial

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<sup>&</sup>lt;sup>1</sup> Luce Irigaray, "Toward a Mutual Hospitality," in: *Conditions of Hospitality : Ethics, Politics, and Aesthetics on the Threshold of the Possible*, ed. T. Claviez (Bronx, NY: Fordham University Press, 2013) p. 44-45.

<sup>&</sup>lt;sup>2</sup> Although, as Sloterdijk insightfully notes, "the conspiracy of silence against the With has its weak point: in truth, obstetricians know that there are always two units which reach the outside in successful births.... Only birth and afterbirth together meet the requirements of a complete delivery." Peter Sloterdijk, *Bubbles: Spheres Volume I: Microspherology*, trl. W. Hoban (Los Angeles, CA: Semiotext(e) 2011), p. 376.

<sup>3</sup> In this chapter, I will use the term "mother," "potential mother," and "woman-becoming-mother" in a predominantly biological way, following the medical scientific literature, referring to how *most* pregnancies gestate, conceive and give birth, namely in terms of a female gestational body. This is not to devalue those gestational bodies that are differently gendered (such as those of transsexual men) or non-gendered. In fact, by emphasizing the *mediatory role of the placenta* and the place it creates for *the pregnant city*, this chapter offers reason to step beyond narrow binary classifications of pregnancy and emphasizes the mixed, complex, material powers of bodies as such.

underpinning to cast-aside superfluous waste. And even with recent developments such as placental dietary supplements or cord blood banking that place the placenta squarely within the sphere of biomedical, biopolitical, and capitalist power structures, 4 what it values (even when it comes to harvesting stem cells) still betrays the remarkable unique co-generative and co-constituting affectivity that is internal to the placenta. What needs rethinking is the fixation on the placenta as an *after*thought or *after*birth: even when assessed as extra-fetal-organ with a functional embryological role, it is still considered of lower ordinal importance and thereby easily cast aside as no longer part of an ontology of childbirth.

But must we accept this subordination of the placenta to the merely *after*, or point instead to the placenta's enduring ecstatic and material trace of a more total union between self and other that persists in mother, child, and species? Integral to the dynamic process of ontogenesis that I am sketching are the enduring places and temporalities that the placenta creates in co-affectivity. Accordingly, I seek to emphasize the placenta's enduring trace of a more total union between self and other that is not only a mark of a past sublated, but also its material condition of possibility.

The placenta, I argue, is more than what the neutral and almost pejorative term *extra-fetal organ*<sup>5</sup> conveys: physically located *in-between* mother and child and *generating* their identities, the term "maternal-fetal organ"<sup>6</sup> is insufficient as well. While the placenta had been previously considered as merely a static "inert" barrier, keeping the circulation of mother and child apart, new research shows the placenta has far more permeability and plays a key *generative* role, actively synthesizing, secreting and transporting molecules affecting both mother and child.<sup>7</sup> Given its

I owe these insights to a helpful discussion with Emily Parker (email correspondence, September 2016).

<sup>&</sup>lt;sup>4</sup> Some of these practices include banking cord blood as a source for stem cells. That these practices can be contested becomes clear in Santoro's writings, who shows that some cases of regulation of cord blood actually led to the development of unregulated trans-national markets. Cf. Pablo Santoro, "From (public?) waste to (private?) value. The regulation of private cord blood banking in Spain," in: *Science Studies*, Vol. 22:1 (2009), pp. 3-23. Other processes include drying, cooking and transforming the placenta into dietary supplements or facial creams to restore health or serve cosmetic benefits. Sloterdijk speaks of the use of the placenta by the cosmetic and pharmaceutical industry, and even reports that placenta's have been used as combustive agents in garbage incinerators (Sloterdijk, *Bubbles*, p. 383).

<sup>&</sup>lt;sup>5</sup> Power and Schulkin use the term "extra-fetal organ." Michael L. Power and Jay Schulkin, *The Evolution of the Human Placenta* (Baltimore: Johns Hopkins University Press, 2012), p. 166.

<sup>&</sup>lt;sup>6</sup> Usha Verma and Nipun Verma, "An Overview of Development, Function, and Diseases of the Placenta," in: *The Placenta: Development, Function and Diseases*, ed. R. Nicholson (Hauppage, NY: Nova Science Publishers, 2013), p. 19.

<sup>&</sup>lt;sup>7</sup> Kurt Benirschke and Peter Kaufmann, *Pathology of the Human Placenta* (New York: Springer, 2000), p. 34.

generative role in affectivity,<sup>8</sup> I speak of the placenta as a *fetal-and-maternal-place-and-time-making-boundary*.

Importantly, if the placenta is to be thought in both biological and genetic terms, namely both as a formative anatomic organ and as a place for genetic invention, we must ask how this generative place making, this hospitality, becomes materially constitutive of mother, child, and placenta alike. This generative affectivity could be what Elizabeth Grosz calls the "unlivable memory of the species, the inaudible themes that make and regulate living bodies, [which] are the directions or orders, the temporality, of formation and functioning that enable the individual members of species to form themselves and once formed, to act, and to do so in the distinctive ways that represent the actions, potentially all of them, of their species."

In this, to focus on the place and role of the human placenta affords us a deeper look at human affectivity *as it is generated.* Here, we find no fully developed, independent human selves (since even becoming a mother is what is to be developed), but rather early conditions for human lives and what makes them come into being. Foregrounding more intricate, social, human relationships, this place of generative human affectivity involves a complex and profound negotiation of "the difference between the 'self' and other.'"

The placenta as medial boundary constitutes a place for the encounter and becoming of mother and child, not only as sapient beings, but in their very nature. Before and beyond the difference between self and other, the placenta offers a model of *affective symbiogenesis* where selves come into existence in and through the very materiality of one another, contradicting the presumed "immunitary logic of self-preservation."

Moreover, even after its factual "demise," the human placenta's residue in the form of microchimeric, ritualized, and social traces reminds us that organisms are all but static, but rather thoroughly mixed, prone to change, and full of spectres of future possibilities.

In the first section of this paper, I will discuss the complex and profound negotiation of the difference between 'self' and 'other' through the topic of *mimesis*. I will do so to craft a *placentology* that accounts for the possibility of ontogenetic

<sup>&</sup>lt;sup>8</sup> Given its permeability of toxins, Mathiesen and Knudsen speak of the placenta as a "xenobiotic-transporting organ." Line Mathiesen and Lisbeth E. Knudsen, "Placental Transport of Environmental Toxicants," in: *The Placenta: Development, Function and Diseases*, R. Nicholson (ed.) (Hauppage, NY: Nova Science Publishers, 2013), pp. 187. <sup>9</sup> Elizabeth Grosz, "Deleuze, Ruyer and Becoming-Brain: The Music of Life's Temporality," in: *Parrhesia* 15 (2012), p. 6.

<sup>&</sup>lt;sup>10</sup> Biologist Hélène Rouch articulates, in conversation with Luce Irigaray: "the difference between the 'self' and other is, so to speak, continuously negotiated. It's as if the mother always knew that the embryo (and thus the placenta) was other, and that she lets the placenta know this, which then produces the factors enabling the maternal organism to accept it as other." Rouch, in conversation with Irigaray, in: Luce Irigaray, *Je, Tu, Nous; Toward a Culture of Difference* (New York-London: Routledge, 1993), p. 41.

<sup>&</sup>lt;sup>11</sup> Roberto Esposito, *Bios: Biopolitics and Philosophy* (Minneapolis: University of Minnesota Press, 2008), p. 108.

becoming in the mother-child-placenta triad, a becoming that breaks with a linear genetic history of origin and authenticity to shape what I shall call the *pregnant city*.

## II. Placental (Re)presentation: Mimesis, Self, and Other

Research has revealed how the placenta is far more "active" than previously thought, not just transporting, but *producing* what have been called "molecules of life": it creates nutrients, enzymes, hormones (such as growth hormones and estrogen) and cytokines. <sup>12</sup> Thus, the placenta enables concrete nutritional and metabolic support, creates and regulates hormonal "information" systems and finally has a key immunological role allowing for and sustaining pregnancy. <sup>13</sup> Given these functions, we could argue in more philosophical terms that it is the placenta's task to offer the *ontological and physical conditions of the possibility* of making the growth and development of both mother and child possible.

Sloterdijk, in *Bubbles*, zooms in on the unique, unconditional, irreplaceable commitment of the placenta to the child, and calls the placenta the child's "placental double,"<sup>14</sup> or its "innermost second element."<sup>15</sup> Sloterdijk's choice to name the placenta the "second" or the "double" of the baby with whom it forms a holistic bubble, sparks a reflection on the nature of the mimetic relationship between child and placenta. Whereas traditionally the baby is considered to be *first*, and the placenta as merely its material "copy," Sloterdijk's words encourage us to see the baby and the placenta as fully engaged in a holistic alliance. By understanding the placenta as "catalyst and mediator"<sup>16</sup> of our generative existence, our human existence would be deemed incomplete or false would we deny the placenta's constitutive role.<sup>17</sup>

This raises the interesting issue of originality, identity and difference. If the baby is not the "first" and the placenta is not the "second" then how could we better understand their mimetic relationship? If we look at the scientific, embryological aspects of the story, then even the commonly expressed idea that the placenta is "derived entirely from the baby," and is thus "genetically part of the fetus," 19

<sup>&</sup>lt;sup>12</sup> Power and Schulkin, *The Evolution of the Human Placenta*, p. 166.

<sup>&</sup>lt;sup>13</sup> Verma and Verma, ""An Overview of Development, Function, and Diseases of the Placenta," pp. 7-14.

<sup>&</sup>lt;sup>14</sup> Sloterdijk, *Bubbles*, p. 399.

<sup>&</sup>lt;sup>15</sup> Sloterdijk, *Bubbles*, p. 382.

<sup>&</sup>lt;sup>16</sup> Sloterdijk, *Bubbles*, p. 358.

<sup>&</sup>lt;sup>17</sup> This in turn forces us to reflect upon ourselves as always fundamentally incomplete, with individualism as a naïve, rationalistic dream that forsakes our attachment to others and forgets the sacrifice made through the commitment and ultimate death of another. Sloterdijk speaks in this regard of our modern individualism as reflecting "placental nihilism" (Sloterdijk, *Bubbles*, p. 387).

<sup>18</sup> Y.W. Loke, *Life's Vital Link: The Astonishing Role of the Placenta* (Oxford: Oxford University Press) 2013, p. 2.

encounters complication. For, in the very early stages of human development after conception, there is only *one* type of cell – blastomeric cells – and nothing seems to differentiate those cells to commit towards either trophectoderm (the precursor cells to the placenta) or inner cell mass (the precursor cells to become the embryo). What will define their cell lineage specification is simply their *location*: when they are externally located, these blastomeric cells will turn to placenta-forming cells, when they are internally located, they will become embryonic cells.<sup>20</sup> If we follow through on this thought, we could argue that the pre-existing spherical whole of blastomeric cells acquires qualitative distinction by differentiating into the inside and outside of a whole.

Thus, we can speak at the very early stage of the pre-embryo and the preplacenta of an identical grounding – with difference created by placement over against each other, and specifically by the determination of cells that are *outer versus inner*. No essential difference delineates what will become placenta and child, simply *placement* relative to each other. Philosophically, this reveals an almost unfathomable *unifying identity* between precursor-placenta and precursor-child with placement as the determinant of each one's fate.

Beyond this initial stage of identity, the blastomeric cells consequently split up in two different cell lineages that give rise to the existence and respective "autonomy"<sup>21</sup> of child and placenta.<sup>22</sup> Here, at least initially, measured in sheer size<sup>23</sup> and autonomy, the placenta seems to have a stronger presence than that of the child, since the placenta could survive even if the embryo were not able to,<sup>24</sup> which is certainly not the case the other way around, at least not until a much later stage.<sup>25</sup>

<sup>&</sup>lt;sup>19</sup> Gail M. Schwab, "Mother's Body, Father's Tongue: Mediation and the Symbolic Order," in: *Engaging with Irigaray*, eds. C. Burke, N. Schor and M. Whitford (New York: Columbia University Press, 1994) p. 363.

<sup>&</sup>lt;sup>20</sup> Yusuke Marikawa and Vernadeth Alarcón, "Establishment of Trophectoderm and Inner Cell Mass Lineages in the Mouse Embryo," in: *Molecular Reproduction and Development* 76.11 (2009), p. 1019. Based on their study of mice, they write: "The location of blastomeres at this stage, i.e., external or internal of the embryo, in effect defines the commitment towards the TE or ICM lineage, respectively. Some studies implicate the presence of a developmental bias among blastomeres at 2- or 4-cell stage, although it is unlikely to play a decisive role in the establishment of TE and ICM."

<sup>&</sup>lt;sup>21</sup> Loke, *Life's Vital Link*, p. 9.

<sup>&</sup>lt;sup>22</sup> Loke addresses the unique nature of the placenta's own program, and speaks (almost hyperbolically) of its goal "to pursue and organize its own program of development totally independent of the baby." (Loke, *Life's Vital Link*, p. 9).

<sup>&</sup>lt;sup>23</sup> Further evidence for the crucial meaning of the placenta is that in this early stage of differentiation, "over 80 percent of the cells formed are extra embryonic," ultimately composing what will be the placenta (Loke, *Life's Vital Link*, p. 9).

<sup>&</sup>lt;sup>24</sup> Cf. Loke, *Life's Vital Link*, p. 9.

<sup>&</sup>lt;sup>25</sup> Loke's focus on the placenta's unique trajectory and autonomy need not be understood as if the placenta's *function* is independent: as Power and Schulkin note, the placenta "regulates and coordinates metabolism and physiology among the

Added evidence for its importance is that as its cells further grow and develop, it starts to produce all the key "molecules to life" and thereby grows into the kind of self that *represents* the embryonic self on an almost "higher" and "more primordial" level given its higher-order materiality and oversight. As Loke writes: "Indeed, the placenta dominates the life of the baby, rather than the other way round." <sup>26</sup>

Said more strongly and directly: from an earlier purely identical relationship between pre-placenta and pre-embryo cells, the placenta grows into the kind of complex being that at least initially appears to be more *autonomous* (both qualitatively and quantitatively) than the other being (child) it is said to represent. Would this mean that we would need to see the placenta after the initial holistic mirroring stage as the then more independent and initiating self who becomes a role model for the baby's self? Not only conceptually, but also experientially, this reversal might encounter revolt. Why? Appearance has much to do with it: for who would prefer to call the amorphous, bloody fleshy mass without elegant proportions (lacking head, rump and limbs), sense-organs (in the traditional sense) and a conventional "brain" the *primary self* of the two selves?

By grasping *mimesis* in a deeper connotation than that of sharing an identical origin (the first stage) or modeling copy after original (which seems at least superficially to apply to the second stage), there might be an alternative way to grasp the changing mimetic relationship between placenta and child over time: through the German term *Darstellung*. *Darstellung* means to present, and specifically to present something to someone: it is the act of "placing (*Stellung*) there (*Da*)."<sup>27</sup> In aesthetics, it accordingly signifies "that which an art work *presents* or *offers* up."<sup>28</sup> This means that *mimesis* does not mean the sheer doubling of an original reality that is already there, but rather indicates the expression, interpretation, presentation and putting-intoplace of a reality. As Gadamer writes in *Wahrheit und Methode*:

Das mimische Urverhältnis, das wir erörtern, enthält also nicht nur, da $\beta$  das Dargestellte da ist, sondern auch, da $\beta$  es eigentlicher ins Da gekommen ist.

mother, the fetus, and itself." (Power and Schulkin, *The Evolution of the Human Placenta*, p. 163). Philosophically, I am interested in questioning until when the remarkable "dominance" of the placenta's existence remains preserved. It seems only "natural" to see this breaking-point at birth, but given the increasing ability of the fetus to digest, "breathe", urinate, etc. (at least in terms of abilities) we might argue that at an earlier age (perhaps around 20-24 weeks) we find an important turning-point in asserting the abilities of the fetus to establish its own boundaries in case of premature birth. Thus, one could argue that the relative dominance of the placenta changes over time and makes place for an increasingly emerging regulatory existence of the fetus.

<sup>&</sup>lt;sup>26</sup> Loke, *Life's Vital Link*, p. 19.

<sup>&</sup>lt;sup>27</sup> Nicholas Davey. "The Hermeneutics of Seeing," in: *Interpreting Visual Culture; Explorations in the Hermeneutics of the Visual*, eds. I. Heywood and B. Sandywell (New York: Routledge, 1999), p. 19.

<sup>&</sup>lt;sup>28</sup> Davey, "The Hermeneutics of Seeing," p. 19.

Nachahmung und Darstellung sind nich abbildende Wiederholung allein, sondern Erkenntnis des Wesens.<sup>29</sup>

If it is the case that the relationship between placenta and baby pivots around this complex form of mimesis, then the placenta is not simply a double or substitute for the baby, nor is the baby simply a double for the placenta, but the placenta brings about, knowledgeably, through *Darstellung*, a more *authentic mediated instantiation* and localization of the baby's self as well as knowledge of its being, i.e. what it is to be a self.

Following Gadamer's interpretation of artworks in terms of *Darstellung*, Lotz emphasizes that "what presents itself in the representation is not something static that could be immediately identified; rather, it comes into being and remains 'fluid' throughout." For the interpretation of the placenta, this means that placental representation will *shift in meaning and embodiment* according to its dialectical engagement with itself, the baby, and the mother.

Summarily then, the *placentology* presented here stimulates us to revise conceptions of originality regarding ontogenesis and to rethink the meaning of selfhood and alterity in the triad mother-placenta-fetus. Genetically, in being derived from the same cells of which the fetus will be composed, the placenta initially emerges as the mirroring double of the fetus. Functionally, over time however, the placenta emerges as the (re)presentation of the baby's self. Not appealing to a "truth" that it represents, it instead functions as a Dar-steller, i.e. as *installer and presenter* of what it is to be a self.

These ideas regarding mimesis and *Darstellung* encounter further depth and complexity when we examine the *relationship between placenta and mother*. For, the placenta also changes the woman's physiology by producing and taking over functions of her biological system, such as growth-hormone production.<sup>31</sup> The placenta thus collaborates in changing the original stage of *homeostasis* (i.e. "maintaining an internal state in support of viability"<sup>32</sup>), to the new physiological state of *allostasis* ("changing an internal state in support of viability"<sup>33</sup>). Poignantly, we could speak in this regard of the placenta as extra-maternal organ (instead of as extra-fetal organ).

Combining the above insights, placental substitution is in fact not a singular act of substitution, but a substitution, presentation and *Darstellung* on behalf of *three* 

<sup>&</sup>lt;sup>29</sup> Hans-Georg Gadamer, *Hermeneutik I: Wahrheit und Methode* (Tübingen: J. C. B. Mohr (P. Siebeck), 1990), p. 120. English Translation: "The situation basic to imitation that we are discussing not only implies that what is represented is there, but also that it has come into the There more authentically. Imitation and representation are not merely a repetition, a copy, but knowledge of the being." Hans-Georg Gadamer, *Truth and Method* (New York, Continuum, 2003), p.114.

<sup>&</sup>lt;sup>30</sup> Christian Lotz, *The Art of Gerhard Richter: Hermeneutics, Images, Meaning* (New York/London: Bloomsbury, 2015), p. 35.

<sup>&</sup>lt;sup>31</sup> Power and Schulkin, *The Evolution of the Human Placenta*, p. 167.

<sup>&</sup>lt;sup>32</sup> Power and Schulkin, *The Evolution of the Human Placenta*, p. 164.

<sup>&</sup>lt;sup>33</sup> Power and Schulkin, *The Evolution of the Human Placenta*, p. 164.

lives. The placenta offers the ground for the possibility of existence, and *also* allows different, material, spatial beings to come into existence. It is a *presentation* rather than a representation in that it brings into place – following Gadamer's ideas – what *is* the self, and instantiates "knowledge of being"<sup>34</sup> in both offering regulatory insight and material instantiation and direct material excretion of its knowledge. The act of placental substitution in the case of growth-hormone take-over is astounding: this is an organ that not just "knows" what needs to be altered, but simply *puts it into place*. The placenta can thus *be* the regulating organ as well as the actual material pituitary replacement and instantiation as well.

Thus, with a nod to Plato's *Republic*, we could argue that the placenta may be seen as the miniature version of the "pregnant city" that is the phenomenon of pregnancy.<sup>35</sup> In Plato's ideal city, the guardians do not only offer theoretical oversight of the city-state, but also embody internally its best (just) composition. In different words, their harmonized composition of body and soul represents the ideal political harmony "writ small." Similarly, the placenta mimetically presents and instantiates the knowledge and being of all the parts and components of the pregnant city "writ small." Furthermore, like a city, the placenta offers a pre-individual, generative place within which life can grow; additionally, it generates individual, differentiated existences that have their own function and being, yet depend on each other for their existence. The placenta generates by enforcing maternal change in the form of *allostasis* and enables on the side of the fetus and itself *allogenesis:* the growth and creation of a whole new other life.

Similar to Plato's ideal city which prioritizes the well-being and unity of the city over is individual components,<sup>36</sup> the placenta equally represents the well-being of the pregnant city as whole, which might be detrimental to some of its parts. For instance, pregnancy can have very dangerous, and even deathly, consequences for the pregnant woman, such as preeclampsia and severe bleeding. Overall, the placenta's mimetic relationship to both mother and child indicates a stage beyond mere doubling, genetic repetition, or simple co-existence: what is at stake is an originary ground that allows *beings to come into existence in and through the very materiality of one another*. Integral to this dynamic process of ontogenesis is the place and time the placenta creates in co-affectivity.

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<sup>&</sup>lt;sup>34</sup> Gadamer, 1990, p. 120 (original)/Gadamer, 2003, p. 114 (English translation).

<sup>&</sup>lt;sup>35</sup> In *Republic* 367e-368d, Plato argues that in order to answer the question of what justice (and injustice) is, for clarity's sake we first need to look at the generation of justice in terms of the "capital letters" of the *polis*, to then return to the small letters, the "miniature" version of justice and injustice, as it is found in the person. Plato, *Republic*, trl. J. Sachs (Newburyport, MA: Focus Publishing) 2006.

<sup>&</sup>lt;sup>36</sup> Plato especially worries about the happiness of the guardians: can they be happy? Plato prioritizes the happiness of the city *as a* whole, which is made possible if everyone performs one's work as best as possible. When performing one's work according to one's nature, each group will participate in the kind of happiness that is in accordance with its nature. Plato, *Republic* Book IV, 419a-421c.

## III. The Placenta as Boundary and the Establishment of Place

The previous section discussed *Darstellung*, but did not focus on the actual issue of place connected with the *Da* ("there") that is crucial to grasping the role of the placenta. The placenta's place and its place-making capacities are remarkable as they speak not just to place, but to the underlying *physis* (nature) that emerges alongside with this coming-into-place. Loke's words speak to the placenta's location and its corresponding function:

In the uterus, the placenta occupies a position midway between the baby and mother, in a kind of 'no-man's land.' (...) From this position the placenta is well placed to monitor and regulate all communications between mother and baby. It effectively acts as a gateway controlling what passes through...<sup>37</sup>

It could be argued that the placenta does not just determine *what* crosses the border, but *is the actual border* between mother and child. What is helpful in Loke's remark is the focus given to the placenta monitoring, regulating and controlling communication. This demonstrates the higher order logic of supervision that the placenta embodies. Moreover, the fact that the placenta offers regulation from its *medial* position, inserting itself in-between mother and child, simultaneously indicates a non-hierarchical, non-originating beginning, which is reminiscent of Marder's words with regard to the place of germination of plant seed, which, in his words, "commences in the middle, in the space of the in-between. That is to say: it begins without originating and turns the root and the flower alike into variegated extensions of the middle..."<sup>38</sup>

Undoubtedly, the placenta is unlike plant seed due to its spatial placement between mother and child (vs. being caught up in-between the growth of the plant itself in terms of roots and flower), but nonetheless it evokes a similar notion of mediality and non-originality where it concerns the growth and development of mother, child and placenta alike, and allows mother and child not just to be "the originators" to which it is simply the hardly apparent in-between, but, to apply Marder's words in a different context, prove mother and child to be "variegated extensions of the middle," 39 i.e. products and extensions of the placenta.

With this thought, namely seeing the placenta not just as by-product but as inbetween non-originating beginning that brings into place a "new physiology" (allostasis) of the mother as well as "new life" (allogenesis) that is the future child, we are also well positioned to see the weakness in Loke's quote above, since the placenta is more than just a gatekeeper between two beings, located in a "no man's land." The placenta in fact creates a place and is thereby not located in the vacuous zone of negative space, but precisely the opposite: in a zone of emergence. More than a gatekeeper, its material conditions allow mother and child and itself to emerge as this

<sup>&</sup>lt;sup>37</sup> Loke, *Life's Vital Link*, p.6-7. Rouch, in her interview with Irigaray, argues that the placenta is the "mediating space between mother and fetus" (Irigaray, 1993, p. 39). <sup>38</sup> Michael Marder, *Plant-Thinking: A Philosophy of Vegetal Life* (New York: Columbia University Press, 2013), p. 63.

<sup>&</sup>lt;sup>39</sup> Michael Marder, *Plant-Thinking: A Philosophy of Vegetal Life*, p. 63.

place unfolds. The placenta is not *the bridge* that *connects* what had already been asserted before. Rather, the placenta *brings into place* the emergent realities of motherhood and child.

Heidegger's account of place in *Building Dwelling Thinking* further deepens this thought: for him, *things must themselves be places*.<sup>40</sup> As Mugerauer clarifies, for Heidegger "the primal scene does not begin with fixed, pre-given objects in a containing pre-given space which then are arranged into a desired or intended design."<sup>41</sup> Heidegger's example of the bridge as place is telling:

Die Brücke schwingt sich *leicht und kräftig* über den Strom. Sie verbindet nicht nur schon vorhandene Ufer. Im Übergang der Brücke treten die Ufer erst als Ufer hervor. Die Brücke läßt sie eigens gegeneinander über liegen. Die andere Seite ist durch die Brücke gegen die eine abgesetzt. <sup>42</sup>

The bridge that Heidegger talks about is not inserted into an empty space that was already outlined before. Rather, the bridge allows "a place to come into existence." <sup>43</sup> If we extend this way of thinking to the placenta, then the placenta is not the bridge that connects what has already been there (mother and child), nor is it being placed in the no-space, that abstract space without actual space of place, <sup>44</sup> the "no man's land" that Loke speaks of. Rather, the placenta brings into existence a place. Just like the banks of the river, mother and child emerge as connected yet differentiated beings because of the place-making presence of the placenta. And various cultures directly pay homage to this place-making presence of the placenta, for instance by burying the placenta under a fruit free in the ground, <sup>45</sup> or by using one word – such as in the Maori

<sup>&</sup>lt;sup>40</sup> German. Martin Heidegger, "Bauen Wohnen Denken," in: *Vorträge und Aufsätze* Vol. II, (Pfullingen: G. Neske, 1954) p. 28; English edition: Martin Heidegger, "Building Dwelling Thinking," in: *Poetry, Language, Thought* (New York: Harper and Row, 1971), p. 154

<sup>&</sup>lt;sup>41</sup> Robert Mugerauer, "Topos Unbound: From Place to Opening and Back," in *Hermeneutics, Place, and Space*, edited by Bruce Janz (New York: Springer, 2017), p. 5 <sup>42</sup> Heidegger, "Bauen Wohnen Denken," p.26 / Heidegger, "Building Dwelling Thinking," p. 152. In English translation: "it [the bridge] does not just connect banks that are already there. The banks emerge as banks only as the bridge crosses the stream. The bridge expressly causes them to lie across from each other. One side is set off against the other by the bridge."

<sup>&</sup>lt;sup>43</sup> Heidegger, "Bauen Wohnen Denken," p.28 /Heidegger, "Building Dwelling Thinking," p. 154.

<sup>&</sup>lt;sup>44</sup> Heidegger, "Bauen Wohnen Denken," p.30 /Heidegger, "Building Dwelling Thinking," p. 156. Heidegger's critique of the abstract notion of space is the following: "the space provided for in this mathematical manner may be called 'space,' the 'one,' space as such. But in this sense 'the' space, 'space,' contains no spaces and no places." <sup>45</sup> Sloterdijk in *Bubbles* speaks about the practice of burial of placentas in cellars or under the staircase so that "the household would profit from its fertile power." He also addresses the "widespread custom to bury it under young fruit trees; one factor in this may have been the morphological connection between the placental issue and

language - to indicate both place and placenta: "whenua." 46 In both ritual and language, the placenta is regarded as the ultimate place-maker that not only generates place and life for the born, but can also establish a new connection for the born to the earth and all life that grows there.

Perhaps surprising, Heidegger's account of place is actually very close to Aristotle's definition of place, <sup>47</sup> and particularly in the fact that place, for Aristotle, is coincident with the thing, and is defined by way of its boundaries:

Further, the place coincides (hama) with the thing, for the boundaries (ta perata) coincide with the bounded (peperasmenōi) (Physics IV.4, 212a30).

If it is the case, as Aristotle argues, that place is coincident with a natural being, and if place is defined by the boundaries from which a natural being unfolds, then the placenta emerges as the *natural place-maker* illustrating Aristotle's point. Before we unpack this in more detail, let us turn to further clarification of the meaning of the boundary in clearing and freeing place, as worded by Heidegger:

Ein Raum ist etwas Eingeräumtes, Freigegebenes, nämlich in eine Grenze, griechisch peras. Die Grenze ist nicht das, wobei etwas aufhört, sondern, wie die Griechen es erkannten, die Grenze ist jenes, von woher etwas sein Wesen beginnt. Darum ist der Begriff: horismos, d. h. Grenze. 48

With this additional clarification of Heidegger on the role of the boundary as "that from which something begins its being" - i.e. unfolds - we find a way to sharpen our definition of the placenta, namely as the *natural boundary from which both mother* and child begin their unfolding and encounter their place. Notice here the shift from Heidegger's singular to my plural: the placenta is unique in providing the boundary

the root systems of tress, as a sort of analogy magic" (Sloterdijk, 2011, p. 378). In addition to burial, other practices such as hanging up and drying, burning and immersion have been employed. All of these methods show respect to the life-giving power of the placenta and correspond, as Sloterdijk astutely observes, to the four elements (Sloterdijk, Bubbles, p. 381).

<sup>46</sup> The Māori term *whenua* means both land and placenta: "All life is seen as being born from the womb of Papatūānuku, under the sea. The lands that appear above water are placentas from her womb. They float, forming islands." See: http://www.teara.govt.nz/en/papatuanuku-the-land/page-4

<sup>&</sup>lt;sup>47</sup> Mugerauer, "Topos Unbound," p. 5.

<sup>&</sup>lt;sup>48</sup> Heidegger, "Bauen Wohnen Denken," pp. 28-29 /Heidegger, "Building Dwelling Thinking," p. 154. I transliterated Heidegger's use of Greek terms. The English translation has: "A space is something that been made room for, something that has been freed, namely, within a boundary, Greek peras. A boundary is not that at which something stops but, as the Greeks recognized, the boundary is that from which something begins its unfolding. That is why the concept is that of *horismos*, that is, the horizon, the boundary."

and thus the place not for one being, but for two (and perhaps three, if we include the placenta itself).

Further complexity can be brought in once we take Aristotle's idea into account that place, as a *where*, is essentially "a mode of being-in," i.e. "being in something else" (*en alloi einai*; *Physics* IV.2, 210b24) and what is bounded "should not be thought of as contained by another body; rather, it is immediately in the limit, i.e. place." This means that the limit is not *another* place, but in fact is different insofar as it is *constitutive of place*. <sup>51</sup>

Should we translate this back to our account of the placenta, then the placenta emerges as the natural boundary and constitutive principle of the place of both mother and fetus, both of which are defined by this boundary that encloses them and yet lets them *emerge and makes them possible*.<sup>52</sup> The place-making capacity of the placenta finds further etymological support in the Ancient Greek language: the Greek word for the vessel holding liquid that Aristotle uses to illustrate place in the *Physics* is *angeion* (208b2-23, 210a24), which does not just designate vessel, but also *afterbirth*.<sup>53</sup>

Perhaps it sounds odd to think of the pregnant mother here as being bound by the placenta. If we are thinking through the spatial, Euclidean dimensions, then we find the fetus bounded by the *inner* boundary of the placenta, which then finds an outer boundary in the uterus wall, which is then enveloped and carried by the mother. However, this more traditional and "mathematical" placement of the mother as the container within which another container (her uterus) envelopes placenta and child in fact does *not* contradict the alternative and more primordial account of place, boundary and place-making provided above. For, in Aristotle's and Heidegger's interpretation of place, the limit or boundary is a constitutive principle that *grounds* a being and provides it its concrete place. Principles that "normally" would define inside and outside are thereby shifted. Accordingly, the placenta can be thought of as both the *material and ontological principle that allows a pregnancy to unfold*: from the mother's perspective, as an outer limit, internally connecting her to new life, and as an inner limit establishing an altered physiology and a new state of being within herself. From the fetus' perspective, the placenta provides also both the *inner* and *outer* limit, externally providing connection to the mother, and internally mediating itself with itself and mirroring what it may become.

 $<sup>^{49}</sup>$  Jeffrey Malpas, Heidegger and the Thinking of Place: Explorations in the Topology of Being (Cambridge, Mass, MIT Press, 2012), p. 8.

<sup>&</sup>lt;sup>50</sup> Helen Lang, *The Order of Nature in Aristotle's Physics: Place and The Elements* (Cambridge: Cambridge University Press, 1998), p. 93.

<sup>&</sup>lt;sup>51</sup> Lang speaks of the limit here as a "constitutive principle." Cf. Lang, *The Order of Nature in Aristotle's Physics*, p. 93.

<sup>&</sup>lt;sup>52</sup> Malpas, *Heidegger and the Thinking of Place*, p. 8.

For the Interval: Relation and Becoming in Irigaray, Aristotle, and Bergson (NY: Fordham University Press, 2012), pp. 60-61. As Hill points out, "Aristotle takes pains to distinguish angeion and topos. Place is the motionless limit surrounding a body, while a vessel is a moveable topos (209b28-29)."

Insofar as pregnancy involves multiple beings, we could argue that both the mother and the child are determined by this larger process as such and thereby find themselves *placed and part of, enfolded by* this larger boundary of the placenta as place-maker as such. As Jeff Malpas writes:

One of the features of place is the way in which it establishes relations of inside and outside – relations that are directly tied to the essential connection between place and boundary or limit. Already this indicates some of the directions in which any thinking of place must move – towards ideas of opening and closing, of concealing and revealing, of focus and horizon, of finitude and 'transcendence,' of limit and possibility, of mutual relationality and co-constitution.<sup>54</sup>

This idea of mutual relationality and co-constitutionality is particularly applicable to the placenta's role in pregnancy. The placenta's existence and growth and changing function over time in dialogue with the fetus and mother make it hard to talk of the co-existence of mother, child and placenta. The issue here is not co-existence, but rather co-constitution of identities *in and through one another*. Life does not live nor unfold and grow within a container, autonomous and fenced off, but rather is determined by the boundaries between inside and outside that limit and enable it. In other words, "places always implicate other places ... they extend out to be inclusive." <sup>55</sup>

While Aristotle's account – supplemented with Heidegger's reading – is very helpful in discerning the placenta's role as place-making boundary, his account of place also leaves room for the kind of criticism leveled at him by Irigaray. Irigaray argues that any account of place needs to include embodiment, and that the interval (diastema) between bodies that Aristotle rejects is in fact present and "must be thought of as extensive and embodied." <sup>56</sup>

Although I disagree with Irigaray's critical assessment of Aristotle's account as one centered on the notion of "containers" in light of my foregoing argument stressing the notion of *concrete place* in Aristotle vs. that of abstract space, the force of her argument lies in critiquing the empty, disembodied limit that would constitute a being's place. This account of the limit denies the fact that place is always embodied, and that its boundary is both in physical and metaphysical community with that which is inside and outside of it. The same problem prompts Irigaray to reject Plato's concept of the *chora*: in Irigaray's reading, the *chora* stands for a non-intelligible, empty, inscriptional space.<sup>57</sup>

<sup>&</sup>lt;sup>54</sup> Malpas, *Heidegger and the Thinking of Place*, p. 7.

<sup>&</sup>lt;sup>55</sup> Malpas, November 9, 2016, Public Lecture at USF "Technology, Spatialisation, and Modernity."

<sup>&</sup>lt;sup>56</sup> Hill, *The Interval*, p. 45.

<sup>&</sup>lt;sup>57</sup> Irigaray reads Plato's account of *chora* in the *Timaeus* in terms of a formless receptacle that equals empty space. She rejects the conflation of *chora* with the feminine or maternal as it places the feminine *outside* any discourse and meaning. Cf. Luce Irigaray, *Speculum of the Other Woman* (Ithaca, NY: Cornell University Press,

As Irigaray reads Aristotle's own *aporia* regarding the question whether place may grow along with the growing thing whose place it is (*Physics* IV.1. 209a28), she writes:

at issue is the extension of place, of places, and of the relation of that extension to the development of the body and bodies. An issue either forgotten or ignored in the junction of physics and metaphysics, since these two dimensions have been set aside or dislocated, but an issue still alive today.<sup>58</sup>

Irigaray's critique is poignant, in thinking through the *material* embodiment of a thing's place in light of its growth and development.<sup>59</sup> In addition, woman, in Irigaray's view, has so far been supposed "only to be a container for the child, according to one moral position. She may be a container for the man. But not for herself."<sup>60</sup> What Irigaray is looking for is a definition of place, which grants that "each of us (male or female) has a place – this place that envelops only his or her body, the first envelope of our bodies, the corporeal identity, the boundary, that which delineates us from other bodies."<sup>61</sup> Only when both female and male *is* a place can a meeting between male and female occur.<sup>62</sup>

But what would happen with Irigaray's criticism if we provide the factual *physical embodiment* to the limit and interval that she is seeking with the physical and conceptual notion of the placenta that envelops both mother and child? Here in fact Irigaray's most recent thinking of the placenta as the *natural "third"* that mediates between mother and child<sup>63</sup> could be used to provide an account of our own most unique natural boundary and serve as an argument *against* her earlier argument that it is the *mother* that is necessarily to be seen as the obvious container. To quote from her recent article on mutual hospitality:

Nature itself provides us with some teachings about what hospitality could be in our time. For example, if a woman can give birth to a child, and even to a child of another gender, this is possible because, thanks to the two, a place in

1985), p. 179. Cf. Judith Butler, *Bodies That Matter: On the Discursive Limits of "Sex"* (New York: Routledge, 1993) p. 40. In his *Chorology*, John Sallis argues that *chora* is not be confused with (empty) space or place, although – as Sallis notes – Plato's dream suggests that we could easily conflate *topos* with *chora*. Cf. John Sallis, *Chorology: On Beginning in Plato's* Timaeus (Bloomington: Indiana University Press, 1999), p. 153.

<sup>&</sup>lt;sup>58</sup> Irigaray, *Je, Tu, Nous* (Engl.), p. 36.

<sup>&</sup>lt;sup>59</sup> In this manner, she conceives of an interval that, in Hill's words "cannot be present to thought, because the interval seeps beyond the present to the past and to the future." Hill, *The Interval*, p. 45.

<sup>&</sup>lt;sup>60</sup> Irigaray, *Ie, Tu, Nous* (Engl.), p. 41.

<sup>&</sup>lt;sup>61</sup> Irigaray, *Je, Tu, Nous* (Engl.), p. 36.

<sup>&</sup>lt;sup>62</sup> Irigaray, *Je, Tu, Nous* (Engl.), p. 40. Here she addresses place "as appropriate to and for the other, and towards which he or she may move."

<sup>63</sup> Irigaray, Toward a Mutual Hospitality, p. 44.

her is produced— one could say in Greek *gignestai*— that does not belong to the one or to the other, but permits their coexistence: the placenta. Neither the woman nor the fetus could survive without this organ that secures both the existence of each and the relation between the two.<sup>64</sup>

If we rethink the position of the boundary with the placenta we acquire a very positive notion of place, namely (1) as horizon and limit, committing ourselves to look both beyond and inside ourselves, (2) as an embodied, concrete interval, emphasizing our embodied interaction with ourselves and the world, (3) as a medium and a mediator between different lives, where the natural space of the placenta can coconstitute identities and let them grow alongside each other, (4) as opening up the possibility of growth and enabling growth both inside and alongside the border, (5) as enabling an interval that both presents future possibilities, confronts us with our past and mortality, and does not hold us captive within the present.

In other words, given Irigaray's positive appreciation of the placenta (as a *mediator* between identities) in her recent writing, we could argue that the placenta as place-maker offers the position of a unique, corporeal boundary that allows both male and female its own, concrete place. And perhaps we could even contend that the placenta as place-maker finds a positive precursor in Aristotle, insofar as he (versus Irigaray's own earlier interpretation of *topos* in the *Physics*) provides for a notion of *topos* that is based *concretely* on the motion and rest of beings that emerge by nature, and specifically with regard to their boundaries.

When we fill in *what concretely constitutes the most initial, unique, and primordial boundary of our lives,* we find an ambiguous body – the placenta – that in its functioning and regulating grounds not just one life, or two lives, but *life as such*. Thus, the placenta provides a form of "originary granting"<sup>65</sup> that is key to *how* places may come about. The placenta's granting is the concrete manifestation of this non-archical, participatory happening of human place.

#### IV. Placental Mediation: Immunology and Hospitality

Childbirth isn't only an offer of life, but it is the effective site in which a life makes itself two, in which it opens itself to the difference with itself according to a movement that in essence contradicts the immunitary logic of self-preservation. Against every presupposed interiorization, it exposes the body to the split that always traverses it as an outside of its inside, the exterior of the interior, the common of the immune. This holds true for the individual body, but also for the collective body, which emerges as naturally challenged, infiltrated, and hybridized by a diversity that isn't only external, but also internal (Roberto Esposito, *Bios: Biopolitics and Philosophy*).<sup>66</sup>

<sup>&</sup>lt;sup>64</sup> Irigaray, "Toward a Mutual Hospitality," p. 44.

<sup>65</sup> Cf. Mugerauer, "Topos Unbound," p. 8; Heidegger, "Art and Space," pp. 5-6

<sup>&</sup>lt;sup>66</sup> Roberto Esposito, *Bios: Biopolitics and Philosophy* (Minneapolis: University of Minnesota Press, 2008), p. 108.

Placental place-making can also be grasped from the perspective of immunology and hospitality. The medial place of the placenta, in-between mother and child, allows the placenta to function as the immunological "face" of the child, insofar as it offers the closest (re)presentation of the child with which the mother stands in contact. In Loke's words: "It is the placenta that connects the baby to the mother at the site of implantation so how the mother 'sees' her placenta rather than her baby is what determines the outcome of her pregnancy (...) the placenta lies in between."<sup>67</sup>

Maternal hospitality cannot be understood without the role of the placenta, and in fact is made possible through it. In principle, the maternal immune system would reject the embryo since it consists of foreign, "not-self" material "e or, if we are precise – it consists of "semi-not-self" or "semi-self" material since the embryo is genetically half-maternal. Hence, in order to host a pregnancy, some kind of "protective mechanism" must be in place. The placenta plays a key role in this, and one of the ways it can take root is by *not* producing tissue antigens (such as HLA-A, -B, -C complexes) that would spark a defensive maternal reaction. In more philosophical words, by making itself immunologically neutral or invisible, the placenta makes itself the *faceless* (unrecognized) face of the other (the baby), and thereby is allowed to live in symbiosis with the mother. We might call this technique one of forcing hospitality upon another – based on appearing to be more neutral or similar than might be the case. The faceless face of the other here is notably not transcendent to the process, but materially part of it.

However, this is only a small part of the placental-maternal immunological story. For, successful placental implantation and growth is dependent upon a constant negotiation between invasion into the uterus (due to "paternal genes [that] promote growth of the placenta"<sup>72</sup>) and restraining this growth (due to maternal genes). And this negotiation can only be made possible if the maternal immune system *does recognize* self vs. non-self. Some theorists speak in this regard of a "tug-

<sup>67</sup> Loke, *Life's Vital Link*, p. 6.

<sup>&</sup>lt;sup>68</sup> Antoine Malek and Nick A. Bersinger, "Immunology of Human Pregnancy: Transfer of Antibodies and Associated Placental Function," in: *The Placenta: Development, Function and Diseases*, R. Nicholson (ed.) (Hauppage, NY: Nova Science Publishers, 2013), p. 59.

<sup>&</sup>lt;sup>69</sup> This applies to those pregnancies in which the gestational mother is also the biological mother.

<sup>&</sup>lt;sup>70</sup> Verma and Verma, "An Overview of Development, Function, and Diseases of the Placenta," p. 14.

<sup>&</sup>lt;sup>71</sup> Verma and Verma, "An Overview of Development, Function, and Diseases of the Placenta," p. 14.

<sup>&</sup>lt;sup>72</sup> Loke, *Life's Vital Link*, p. 9.

<sup>&</sup>lt;sup>73</sup> The underlying reasoning is, according to Loke, that "the father wants a big placenta to access the maximum amount of food from the mother to feed the baby, whereas the mother restricts this predatory activity in order to conserve her resources for the sake of her own health" (Loke, *Life's Vital Link*, p. 10).

<sup>&</sup>lt;sup>74</sup> As Loke discusses, there are different kinds of immune systems operative in our bodies. On the one hand, the archaic, innate one is based on self-recognition (or

o-war,"<sup>75</sup> which does not sit well with feminists, who prefer to speak instead of "compromise" and "cooperative exchange."<sup>76</sup> Still, the fact of the matter is that some kind of *negotiation* and mediation has to occur.

Still other biological mechanisms are in place to facilitate the hosting relationship. For one, the placenta is also very *active* in fending off the mother's defense mechanism.<sup>77</sup> Moreover, by producing progesterone, which is (among other things) needed for the mucus lining of the uterus to maintain pregnancy<sup>78</sup> and has an *immunosuppressive* effect,<sup>79</sup> the placenta has another way of protecting itself and the baby. And, most interestingly and provocatively, through pregnancy the mother's immune system is partly encouraged to *reverse* its defense mechanisms, and turn them into acts of hospitality: the NK cells that in the case of a transplant would be activated to reject tissue, instead produce substances that *encourage* the growth of particular placental cells.<sup>80</sup>

This latter mechanism involves perhaps not only a remarkable *shift* of the immune system, but also a backtracking, re-constitution and evolvement of the maternal immune system. The philosophical significance of this is astounding: *a system that is aimed at protection (of "self") can actually reverse its function, and instead of protecting itself turn towards collaborating with the growth of the other.* Since recognition of the placenta/baby as *other* is necessary to host it, Esposito in *Immunitas* writes that "what allows the child to be preserved by the mother is not their 'resemblance,' but rather their diversity transmitted hereditarily from the father. Only as a stranger can the child become 'proper.'"<sup>81</sup> From the perspective of the placenta, this means that its possibility to create a home for baby and mother lies in presenting and negotiating difference and self, and offering a re-constituted notion of home where immunity is not the opposite, but the condition of the possibility for community.<sup>82</sup>

absence of self) and is designed to work on the organism's internal integrity. On the other hand, the adaptive immune system is based on presence of non-self and works as "defense against external aggressors" (Loke, 2 *Life's Vital Link*, pp. 132-133).

75 Loke, *Life's Vital Link*, p.9.

<sup>&</sup>lt;sup>76</sup> Kelly Oliver, *Family Values; Subjects Between Nature and Culture* (New York/London: Routledge, 1997), pp. 30-33.

<sup>&</sup>lt;sup>77</sup> It "blocks cytotoxic maternal cell effects by secreting various factors." Verma and Verma, "An Overview of Development, Function, and Diseases of the Placenta," p. 14. <sup>78</sup> Gail M. Schwab, "Mother's Body, Father's Tongue," p. 363.

 $<sup>^{79}</sup>$  Verma and Verma, "An Overview of Development, Function, and Diseases of the Placenta," p. 14.

<sup>&</sup>lt;sup>80</sup> Loke, *Life's Vital Link*, p. 151. In the end, Loke argues, this is evolutionary advantageous, as it allows for expansion of HLA and protection against disease. <sup>81</sup> Esposito, *Immunitas*, p. 171.

<sup>&</sup>lt;sup>82</sup> Cf. Esposito, *Immunitas*, p. 171. Regarding pregnancy, he writes that "the force of the immune attack is precisely what keeps alive that which it should normally destroy." The immune response thus becomes "indistinguishable from its opposite, 'community.""

And here is where the story of maternal-placental immunology in dialogue with the narrative of hospitality becomes even more interesting. While it is the case that some autoimmune diseases, such as Systemic Sclerosis, may actually flare up, or develop during pregnancy or post partum, 83 there is also literature to prove that other autoimmune diseases such as Rheumatoid Arthritis actually improve or recover completely during and after pregnancy. 84 This would mean that increased maternal recognition and hospitality of the baby through pregnancy might not only create a place to meet the other, but also *oneself*.85 Somehow, through placental mediation, the mother's self can better realize herself through better recognizing herself *as* self instead of mistaking herself for another.86

In other words, placental mediation does not only offer a home to baby and placenta, but may also offer the mother a more refined home to encounter herself. In this regard, Irigaray's interesting thoughts on auto-affection acquire a whole new meaning: she speaks of the need to "discover, and in part rediscover, a relation of intimacy with ourselves that allows us to stay in ourselves when relating with the other." <sup>87</sup> Pregnancy offers yet another way for auto-affection to prove its meaning, since it provides a physical and metaphysical encounter of the female body with itself, and may provide the point of departure for an altered and respectful coexistent becoming.

### V. Conclusion: Towards a Genuine Sense of Hospitality

The placenta's medial existence and function promote a rethinking of the primacy of originality and copy, of self and other, of boundary and place, and of hospitality and immunology. If we zoom in on the hospitality offered by pregnancy, room has to be

<sup>&</sup>lt;sup>83</sup> M. Gayed and C. Gordon, "Pregnancy and Rheumatic Diseases," in: *Rheumatology* 2007; 46(11), pp. 1634-1640.

<sup>&</sup>lt;sup>84</sup> For instance, in the case of Rheumatoid Arthritis, as Buyon argues. She states: "Pregnancy is associated with improvement in the clinical signs and symptoms of rheumatoid arthritis in more than 70% of patients." Conversely, "the course of systemic lupus erythematosus is more variable." Jill P. Buyon, "The Effects of Pregnancy on Autoimmune Diseases," in: *J. Leukoc Biol.* Mar; 63(3) 1998, p. 281.
<sup>85</sup> Esposito writes: "Indeed, just as the attack of the mother protects the child, the child's attack can also save the mother from her self-injurious tendencies – which explains why autoimmune diseases undergo regression during pregnancy" (Esposito, *Immunitas*, p. 171). Esposito's remark is thought provoking in highlighting how embracing the other actually may aid the self, but needs some nuance and further complexity, given that some autoimmune diseases actually *develop* or flare up during pregnancy.

 $<sup>^{86}</sup>$  Insofar as it is theorized that auto-immune diseases are based on mistakenly confusing cells that are "self" for "non-self."

<sup>&</sup>lt;sup>87</sup> Irigaray, "Toward a Mutual Hospitality," p. 52. Furthermore, she continues: "self-affection ought to evoke a state of gathering with oneself and of meditative quietness without concentration on a precise theme, an attitude that is practiced in certain cultures, more than a Western auto-eroticism or a gesture of religious nature in connection with a divinity defined as external in relation to us."

created for an alternative model than the current one, which far too simplistically views the mother's hospitality as one in which pregnancy is merely the filling of hollow container, similar to thoughts that view hospitality as a form of receiving which "fills up a void with an alien presence." 88

Gabriel Marcel defines authentic hospitality as a practice that means "to admit in or welcome an outsider into one's home." He concludes that hospitality involves the other to *participate* in one's home; consequently, he speaks of hospitality as "a gift of what is one's own, i.e. of oneself." And Esposito reminds us that pregnancy is only possible by welcoming the child as radical "other" and encouraging the maternal immune system to develop the needed factors to offer this "outsider" a place within one's self. This would mean that pregnancy is an ultimate act of offering hospitality to the other who becomes part of the self.

However, the hospitality that I seek to address here is even more far-reaching in that it goes beyond this act of maternal hospitality, or even the hospitality that the child affords to the mother by providing her a new place in pregnancy to encounter herself. Placental mediation namely grants a constitutive kind of hospitality that allows us to rethink and redefine *what home as generative-place-making* might mean. As a physical and metaphysical place where different lives can become who they are through dialectical opposition and mediation with the other(s), the placenta breaks through "the immunitary logic of self-preservation" and transcends ordinary conceptions of self and other by redefining "home."

If we ourselves have been made possible by such an original place-and-being-making entity as the placenta, then current studies of *microchimerism* assure us that the placenta's radical place-making abilities still live on as material traces in our bodies. Microchimerism is the condition where genetically diverse cell populations co-exist within one individual (constituting less than  $1\,\%$  of the total number of cells). The most common form of natural microchimerism is through placental

<sup>&</sup>lt;sup>88</sup> This is the view that Gabriel Marcel rejects. Gabriel Marcel, *Creative Fidelity*, trl. R. Rosthal (New York: Farrar, Straus and Company, 1964), p. 28.

<sup>&</sup>lt;sup>89</sup> Gabriel Marcel, *Creative Fidelity*, p. 27. He continues writing that in order to feel at home, "the self does or can seem to itself to impregnate its environment with its own quality, recognizing itself in its surroundings and entering into an intimate relationship with it (pp. 27-28).

<sup>&</sup>lt;sup>90</sup> Marcel, 1964, pp. 28.

<sup>91</sup> Esposito, *Immunitas*, p. 171.

<sup>&</sup>lt;sup>92</sup> In this regard, I go beyond Aristarkhova's idea that the mother has to first be hosted ("at home with herself") before hosting. In my view, placental hospitality goes before and beyond any specific hosting of identities (mother and child). Cf. Irina Aristarkhova, 2012, p. 46-47.

<sup>93</sup> Esposito, *Bios*, p. 108.

<sup>&</sup>lt;sup>94</sup> Van Halteren et al define microchimerism as "a condition where one individual harbors genetically distinct cell populations, and the chimeric population constitutes < 1 % of the total number of cells." Van Halteren et al., 2013, p. 132.

exchange of cells in pregnancy.<sup>95</sup> Mothers may harbor fetal cells in many parts of their bodies, ranging from their brain, heart, kidney and skin until old age, and these cells may assist in repairing particular tissues that have been damaged, or may actually impose risks upon the mother.<sup>96</sup> Similarly, children may harbor maternal cells into adult life as well, with some offering protection (as in the case of Diabetes Type I) and others potentially harmful.

Since these different cell populations – residue of the permeable border that is the placenta – often remain present through adult life and actively mediate our physiology and pathology in the present and the future, they contest the way we draw the living, embodied borders between self and other. While the placenta's life as individualized, material living organ is temporary, as is the material infrastructure of pregnancy, <sup>97</sup> the constitutive *role* of the placenta as place-maker continues, albeit in different forms.

As the phenomenon of microchimerism shows, the placenta's grounding function lives on as the non-messianic, material, microchimeric trace that redirects the futures of mother and child alike by mixing cell populations and inserting itself in ambiguous ways, constantly allowing identity to be born out of difference. Secondly, in cultural rituals such as the burial of the placenta, the placenta is explicitly allowed to continue its existence in emplotting the newborn in the earth and the ground. Thirdly, the "residual after" continues on in new social relations that co-constitute and co-develop identities, 98 allowing for yet another (social) *in-between* to reconstitute the life of the placenta.

The liminal place that is originarily the placenta's thereby lives on in the mixed, constantly transforming, natures and futures of our bodies. Thus, the placenta and its enduring traces encourage us to rethink the nature of our intertwined,

<sup>&</sup>lt;sup>95</sup> However, it can also happen in spontaneous abortion, in the case of transfer between twins, and possibly cell transfer "from an older sibling or previous pregnancy of the mother" to the fetus. Cf J. Lee Nelson, "The Otherness of Self: Microchimerism in Health and Disease," in: *Trends in Immunology*, 2012 Aug; 33(8), pp. 421-422.

<sup>&</sup>lt;sup>96</sup> J. Lee Nelson, "The Otherness of Self: Microchimerism in Health and Disease," in: *Trends in Immunology*, 2012 Aug; 33(8), figure 2 on p. 425

<sup>&</sup>lt;sup>97</sup> This means it provides a *temporary place* and with the progression of a pregnancy much of its boundary-establishing tasks will eventually be taken over by the fetus as such. With thanks to Bob Mugerauer for encouraging me to think through the issues of temporary, portable boundaries, and temporary place. Personal email conversation, November 2015.

<sup>&</sup>lt;sup>98</sup> I owe this suggestion to Valerie Broin, whose commentary on my APA paper carefully and insightfully articulated how the placenta also "prepares and allows for the vital and generative "between" to continue after the placenta has done its job... its emergence after the birth of the baby signal a new 'afterbirth-between' that extends into the broader world, involving not just the newly developing mother-baby interrelation, but all other relations and involvements that co-constitute and co-develop various identities." Valerie Broin, Commentary at Pacific Meeting of the APA, March-April 2016.

constantly altering identities, and to reinstall the original hospitality made possible by the placenta. The exteriority that is part of all us may serve as an ethical and political reminder to practice the openness and hospitality of which our bodies are the living traces.<sup>99</sup>

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<sup>&</sup>lt;sup>99</sup> In my forthcoming monograph *E-Co-Affectivity* currently in preparation for peer-review, the analysis of the placenta is part of a broader account of affectivity that thinks through the concrete, living places where affectivity happens. To this end, I examine, among other things, photosynthesis in plants, touch and trauma in bird feathers, the medial power of human skin, and the material interface of soil.

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