CANADIAN CATHOLIC BIOETHICS INSTITUTE
INSTITUT CANADIEN CATHOLIQUE DE BIOÉTHIQUE

BIOETHICS MATTERS
ENJEUX BIOÉTHIQUES

March 2014 Volume 12, Number 2

Maternal-Fetal Attachment and the Culture of Life II

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The first article of this two-part series[1] provided an examination of maternal-fetal attachment, a phenomenon recognized by researchers in which the bond between a mother and her child begins in pregnancy, leading to developmental behaviours that protect both mother and child before birth and prepare them for life after birth. Pregnancy, with all of the growth it entails, thus becomes an important developmental stage for the pregnant woman as well as for the baby she carries. What is the importance of maternal-fetal attachment within the context of a Culture of Life?

IMAGO DEI AND RELATIONSHIPS OF RECIPROCITY

In section 74 of *Evangelium Vitae*,[2] John Paul II discusses the law of reciprocity, that is, that human beings live not as isolated individuals but as persons connected to one another in a relationship of giving and receiving. In this sense we are made in the image and likeness of the Holy Trinity—three distinct Persons united as one God in an eternal communion of love. Like the Blessed Trinity we are "called to live in a communion of love."[3] The maternal-fetal relationship fully realized, that is, where attachment is present, can be seen as a model of reciprocity.

This relationship of love begins prenatally and, for the pregnant woman, "involves a special communion with the mystery of life, as it develops in the woman's womb."[4] It is a hidden, intimate and exclusive relationship, with the mother having kinetic knowledge of her child—of the child's movement, the child's presence. Even as others can see that she is pregnant and even feel movement beneath their hands, they cannot know this baby as she does. She communes with her baby in a way that no one else can.

Can the fetus be said to be a participant in the maternal-fetal pairing? Research continues to unfold, but it would appear that an infant's responses to her mother—recognition of her voice and heartbeat—are laid down *in utero*. Clinicians talks about an infant having a "preference" for her mother's voice, being soothed by the familiar voice and rhythms of this person to whom she had been intimately and exclusively attached for months.[5] At the same time, pregnant women often report "responses" from their unborn children; they are engaged in an active and often satisfying relationship with them. It is possible to chalk this up to imagination, to women creatively preparing themselves for life with a baby. On the other hand, prenatal diagnostic techniques like ultrasound show us the baby actively responding to stimuli *in utero*.

In pregnancy, then, two distinct individuals exist in a relationship of intimate

interdependence. They also exist in relationship with the father/husband, with their family and with their community. The security provided by the support of these important others is crucial; with it, the pregnant woman can engage more easily and fully in attachment, in the pleasure of knowing and loving her baby.[6]

LACK OF SUPPORT AND MATERNAL-FETAL ATTACHMENT

Unfortunately, not every woman receives this support; many find themselves socially isolated, or living with the physical and psychological stresses of poverty, of job and housing insecurity, even hunger. These stresses can lead to depression and anxiety, to chronic illnesses like asthma and diabetes, to addictions and obesity.[7] All of these are bad for the mother and have the potential to disrupt the attachment process which in turn can have harmful repercussions for the child.[8]

Poverty and poor maternal-fetal attachment form a cruel dynamic, with poverty interfering with maternal-fetal attachment and poor or disrupted maternal-fetal attachment leading to physiological-social disadvantages that result in continued poverty. While some of this may be the result of learned behaviour, researchers are finding that epigenetics may play a large role in the success or failure of maternal-fetal attachment.[9]

We are accustomed to thinking of genetics as fixed and inherited. But we are composed of cells actively responding to stimuli. In some cases the stimuli may be so chronic that they lead to changes in the cells themselves and their biochemical responses. A person constantly exposed to stress for instance, may automatically have an exaggerated response to stimuli—might startle at a loud noise that another person might merely notice. Furthermore, these changes, although not genetic, can be transgenerational so that "[g]randchildren in a socially disadvantaged family could inherit from their socially disadvantaged parents and grandparents a greater risk of metabolic disorders" that could lead to a risk of developing obesity, for instance or perhaps type II diabetes.[10] And in many cases, these changes begin prenatally.

Fetuses exposed to chronic maternal stress, poor nutrition, and/or toxic substances are at risk of having a low birth weight and impaired neurological development. If they continue to experience poor maternal attachment after birth—including neglect and abuse—infants will fail to thrive as they adapt instead to insecurity in their circumstances and in their primary relationship. In failing to thrive, infants will be slower to grow and develop physically and "slow ... growth in infancy is associated with reduced cardiovascular, respiratory, pancreatic and kidney development and function, which increases the risk of illness in adulthood."[11] Infants who do not experience security and healthy stimulation are at risk of failing to develop the psycho-social skills necessary for success in school and social interactions. As adults, they are at risk for being socially isolated and marginalized.

Difficulties with providing maternal care can similarly be transgenerational.[12] Women who fail to experience healthy attachments with their own mothers prior to birth or in infancy are at great risk not only of failing to form

healthy attachments with their own babies, but their daughters may also be epigenetically at risk of failing to form healthy attachments with their babies. Much of this finds its roots in poverty—and the cycle of poverty is insidious.[13] There is every chance that a pregnant woman who is enduring the stresses of poverty had a mother in similar circumstances.[14]

It is important to note, however, that even those traits laid down behaviourally or epigenetically are not permanent. They can be reversed.[15]

BUILDING A CULTURE OF LIFE

According to *Evangelium Vitae*, "The meaning of life is found in the giving and receiving of love ...."[16] Furthermore, as Pope Francis notes in *Evangelii Gaudium*, what we do for others (or fail to do) profoundly affects our relationship not simply with our neighbour but with God.[17] This is the truth expressed in Jesus' words, "Whatsoever you do to the least of my brethren, you do unto me." (Mt 25:40) As well, if we understand ourselves as being made in the image and likeness of the Triune God, eternally giving and receiving love, we must express this externally in the way we live our lives.

If our wellbeing depends on our willingness to give love as well as to receive it, then we must make it possible for others to experience the wholeness that comes with reciprocity. In other words, part of loving our neighbours means helping to make it possible for them to give freely of *themselves* to *their* neighbours. People who believe that they are nothing or who find themselves in circumstances where they have nothing, risk being deprived of the joyous vocation of being a gift to others. We are called to rectify this where we can. Given the importance of maternal-fetal attachment, those committed to promoting a Culture of Life must remove obstacles and provide support for pregnant women entrusted with bonding to and caring for their unborn children.

Attitude is a part of this. We can ask about our own contributions to maternal-fetal attachment: Are we a community that supports and welcomes pregnant women, no matter what their age or circumstance? Or are we judgemental about pregnant women, disapproving of those who might be too young, too old, too poor, or have "too many children" already? Are we supportive of those who support them—their husbands and families in particular? And, to take our lead from Pope Francis, how do we care for pregnant women who otherwise have no support in this crucial life-stage? These are questions that we must address if we are to create a Culture of Life.

We must also attend to poverty and other social determinants of health. *Evangelium Vitae* urges us to care for the poor.[18] Pope Francis takes this further, calling us to welcome the poor into our hearts,[19] to care for the most marginalized,[20] including women and unborn children,[21] and to change the structures that cause and perpetuate poverty.[22] The social dimension of the Gospel reflects the Trinitarian paradigm that is meant to inform our existence—connecting us to our God, to our neighbours and ourselves. In the process we become a gift to others and allow them to be gifts to us. As we help facilitate maternal-fetal attachment by supporting pregnant women and unborn children in their intimate

relationship of love, we engage in communion with them and glimpse our ultimate calling. ■

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[1] Bridget Campion, "Maternal-Fetal Attachment and the Culture of Life. Part One: An Examination of Maternal-Fetal Attachment," *Bioethics Matters* 11 (Nov. 2013), 1-4.
[2] John Paul II, *The Gospel of Life* (Sherbrooke, QC, 1995), III, 74.
[3] John Paul II, "*Mulieris Dignitatem"* II, 7; http://www.vatican.va/holy_father/john_paul_ii/apost_letters/1988/documents/hf_jp-ii_apl_19880815_mulieres-dignitatem_en.html (accessed January 2014).
[4] Ibid., VI, 18.
[5] P.G. Hepper, "Fetal memory: Does it exist? What does it do?" *Acta Paediatricia* 85 (1996), 18; http://journals.1.scholarsportal.info.mayaccess.linrary.utoronto.ca/tmp/1893171902167680556.pdf (accessed Sept. 2013).
[6] Adela Yarcheski, et. al., "A meta-analytic study of predictors of maternal-fetal attachment," *International Journal of Nursing Studies* 46 (2009), 709, 714. http://journals.1.scholarsportal.info.myaccess.library.utoronto.ca/tmp/5691456630554651036.pdf (accessed Sept. 2013).
[7] For a discussion of social determinants of health, see: Bridget Campion, "Social Justice and Health Care: Health Inequities and Social Determinants of Health," *Bioethics Matters* 7 (Sept. 2009), 1-3.
[8] Frances A. Champagne, "Epigenetic Mechanisms and the Transgenerational Effects of Maternal Care," *Frontiers in Neuroendocrinology* 29 (2008), 8; www.ncbi.nlm.nih.gov/pmc/articles/PMC2682215/pdf/nihms52710.pdf (accessed January 2014).
[9] Michele Loi, Lorenzo De Savio, and Elia Stupka, «Social Epigenetics and Equality of Opportunity," *Public Health Ethics* 6 (2013), 145; http://phe.oxfordjournals.org/content/6/2/142.full.pdf+html (accessed January 2014); see also Frances A. Champagne's article, above.
[10] Loi, p. 150.
[11] Richard Wilkinson and Michael Marmot, *Social Determinants of Health: The Solid Facts*, second edition, p, 14; www.vdh.virginia.gov/OMHHE/healthequity/documents/solid_facts.pdf (accessed January 2014).
[12] Champagne, pp.2-3.
[13] Jean L. Alhusen, "A Literature Update on Maternal-Fetal Attachment," *Journal of Obstetric, Gynecologic, and Neonatal Nursing* 37 (2008), p. 322; http://journals1.scholarsportal.info.myaccess.library.utoronto.ca/tmp/17032154801920101199.pdf (accessed September 2013). Jean L. Alhusen, et. al., "The Influence of Maternal-Fetal Attachment and Health Practices on Neonatal Outcomes in Low-Income, Urban Women," *Research in Nursing and Health* 35 (2012), p. 7; http://www-ncbi-nlm-nih-gov.myaccess.library.utoronto.ca/pmc/articles/PMC3313492/pdf/nihms363400.pdf (accessed September 2013).
[14] Champagne, p. 7.
[15] Ibid., p. 5; Loi, pp. 145, 149, 151.
[16] *Evangelium Vitae*, IV, 81.
[17] Pope Francis, *Evangelii Gaudium,* 4, II, 187; http://www.vatican.va/holy_father/francesco/apost_exhortations/documents/papa-francesco_esortazione-ap_20131124_evangelii-gaudium_en.html (accessed December, 2013).
[18] *Evangelium Vitae*, IV, 87.
[19] *Evangelii Gaudium,* 4, II, 199.
[20] Ibid., 4, II, 195.
[21] Ibid., 4, II, 212; 4, II, 213.
[22] Ibid., 4, II, 188.