

# Technics of touch in the neonatal intensive care

Michael van Manen

## Correspondence to

Dr Michael van Manen, John  
Dosssetor Health Ethics Centre,  
5-16 University Terrace, 8303 -  
112 Street, University of  
Alberta, Edmonton, Alberta T6G  
2T4, Canada;  
michaelv@ualberta.ca

Accepted 7 June 2012

Published Online First

6 July 2012

## ABSTRACT

Medical technologies, although often crucial for the provision of healthcare, may carry unintended significance for patients and their families. The highly technicised neonatal intensive care unit (NICU) is the place where parents of hospitalised baby have their early encounters with their child. The aim of this study is to investigate phenomenologically how the contact and relation between parent and child may be affected by the mediating presence and use of the techno-medical features and equipments of the NICU. Three common technologies are examined for the ways they condition the kinds of contact afforded between parents and child: the isolette, the feeding tube and the brain imaging equipment. The concluding recommendations speak of the need for understanding the relational experiences of parents of hospitalised babies, and the tactful sensitivities required of the healthcare teams who provide care to these families.

The world of neonatal intensive care is a technological environment, inhabited by babies who are attended by nurses, physicians and other healthcare people. These professionals have dedicated themselves to look after the physical well-being of the newborns who have come into this neonatal intensive care unit (NICU) world with critical health needs. While an outside visitor would probably be bewildered by the scene of tiny babies in cubicles attached to wires, tubes and monitors, the healthcare professionals see an orderly world. They see babies with unique medical requirements. They understand the medical difficulties of these little embodied beings, and they respond to their needs in the best way they can.

But there is another kind of visitor in the NICU. And this is the parent. How does a father or mother encounter and experience his or her child in this high-technology place? This is an important question since the health and healing of the newborn is intricately interwoven with the parental being of the father and mother, but in ways that medicine perhaps does not yet fully understand. While the medical community realises the critical importance of attachment between baby and parent for the present and future being of the child and the child's family, questions relating to the actual experience of this developing relation in a medical-technological environment such as the NICU remain largely ignored. So what happens when a father or mother meets or visits his or her child in the NICU? Do they see this child, just as any confused visitor might? Perhaps. But hopefully, the encounter between a parent and newborn is the beginning of something more

consequential. Undoubtedly, the health of the child, the becoming of the parent as a mother and as a father, and the possibility of the birth of a new family depend on it.

## PHENOMENOLOGY AS METHOD

Phenomenology, as a human science research method, is directed at exploring the meaning of a recognisable lived experience, a phenomenon. The focus is not on opinions, perceptions or judgements about experiences; but instead on direct descriptions of lived experiences and achieving a 'direct and primitive contact with the world' as experienced in everyday life (p vii).<sup>1</sup> Phenomenology is a textual form of enquiry that aims to express and explicate experience in rigorous and rich language. The textual process of writing is a key part of the research that involves finding language sensitive to the phenomenon, yet allowing the phenomenon to speak for itself as it were.<sup>2</sup> Like every other research approach, phenomenology employs certain methodological techniques (such as the epoché and the reduction) for investigating meaning structures that constitute the phenomenon to be explored. For an overview of this methodology see, for example, van Manen (1990).<sup>2</sup> For other examples of the application of phenomenology in medicine, see Toombs (2001).<sup>3</sup>

For this study, I focus on the phenomenon of 'encountering contact' from the parental perspective of the NICU child. And by reflecting phenomenologically on a variety of examples, where the parent-child intentional relation is experientially mediated by medical technologies, I explore the eidetic (invariant) meaning aspects of this contact. More so, I examine how various technologies may have a bearing effect on shaping this relation. The technologies were chosen for their common use in the NICU and for the ways that they touch on the formative being and becoming of the relation between parent and child.

I should clarify that, for those unfamiliar with phenomenology, this form of enquiry does not aim to generate empirical generalisations nor does it aspire to develop theory. Rather, the purpose is to gain meaningful insights into possible human experiences. Not all parents will necessarily share these experiences in a similar manner. In particular, the 'anecdotes' in this article serve as rhetorical devices to assist the reader to access the subjectivity of possible parents' experiences. The anecdotes may be considered as 'fictional examples or paradigms' to let the reader understand something that cannot simply be easily explained in conceptual-discursive terms.<sup>2</sup> I also note that the anecdotes have been deliberately edited to contain no identifying information.

This study was approved by the Health Research Ethics Board at the University of Alberta, Edmonton, Canada.

## ENCOUNTERING TOUCH

I remember the first time that I held my child's fingers, or rather that he grasped my index finger and held it. The nurse had put him in my arms. He seemed so fragile. I just stared at him. As his head turned, his eyes seemed to be looking for something to hold onto. And his arms were jittery fingers groping at the air until they found and grasped my finger. I was struck by his face. I looked at him, somewhat confusedly stunned. I felt taken aback. I was holding this baby in my arms who was my child. I cradled him so carefully, keeping everything tucked in and safe—the feeding tube and monitoring wires, just so. Although I held him in very close, it felt like he was really holding me, so firm was the grip of his little fingers. As he moved his arms, I moved my hand within his reach, allowing his fingers to close around mine. I did not even think about these subtle gestures until they had already happened. As my child was holding me with his fingers and his gaze, I experienced a powerful and overwhelming sensation: this little baby was making me a father.

A father recounts his first time of holding his child, born of technology. Indeed, if it was not for the NICU, the child might not be alive. But, for the father this technological reality is simply a backdrop to his encounter with his child. In touching each other with their eyes and hands, in the crossing of gazes and caress, the father and child find each other, making contact. The word 'contact' derives from *contingere*, meaning to touch or be touched closely, connectedness, in-touchness. To face another, says Lingis, is to touch with the eyes, and the vulnerability of the other is felt in our eyes.<sup>4</sup> It seems that in the contact of seeing and being seen, the touching of hands, the father encounters his own sense of fatherhood.

When the father speaks of being stirred by the *face* of his child, it is not just the physiognomy of his child's face that rouses him nor the fragility of the head, the colour of the eyes or the child's delicately thin skin. When the father speaks of the grip of the child's fingers, he is not speaking of the amount of pressure exerted on his own finger. Rather, he is struck by the *face* of the child. The grip of the child's finger announces his presence as an *other* to the father. The father feels the child's grip physically, and feels this grip pathically, relationally and existentially as his own fatherhood. Buytendijk has suggested that touch may be expressive of a direct kind of intimacy as it establishes in a 'feeling' way a close relation.<sup>5</sup> In cradling his child, the father experiences both the child's touching and his own touch. It is a double aspect of responsiveness and sensitivity as to touch allows for an experience of grasping understanding and opens the parent to a moment of being moved by the otherness of the child.

The father's story tells of a moment of rupture, interruption and provocation when he is struck by his child. In a moment like this, the meeting between parent and child is not just a meeting, but a true encounter: encountering the child's self in his or her singularity. How can the father be anything but bewildered and taken aback when faced with the *face* of his newly born child? Levinas helps us understand the ethical command of the face. The face in its irruptive expression 'calls me into question' (Levinas, p. 83).<sup>6</sup> As such, the experience of the other, the face, becomes the condition for the possibility of ethics. In the case of the father, it is his ability to experience his own response to the child's touch: his paternal sense of responsibility.

We may wonder though what happens when perception and touch become mediated by technology. In the NICU, the child is rarely experientially given to the parent free from technologies. Rather, the child is blended into the technical environment: contained in isolette or bassinette, connected by lines to machines, displayed on monitors. How then may a parent perceive his or her child? How does a parent experience a child that seems wired into this medical-technological world?

In the next sections, I explore three different neonatal technologies that may affect the encounter of parent and child. The aim is to produce some insights as to how this ethical moment may be touched. In each of the following cases questions are raised: How is the child of technics given to experience? What can we learn about the parent's experience of subjectivity? How is technology seen or perhaps not seen?

## THE ISOLETTE AND THE RESTRAINED TOUCH

In a few days it is going to be 3 weeks of him being here, stuck on a breathing machine. Still, even up to now, though I am here every day, I don't feel like a mother. I sit by his isolette, look through it, open it, reach inside it, every day just to be with him. But it does not seem to help. I don't know what to do. There is too much going on in there—tubes, wires, and needles, everything. Sometimes I just stand here and talk to him. I tell him that he is doing a good job, but I don't know if he can even hear my voice. At times, when I put my hand in there, he grasps it, holds onto it, and won't let go. He won't do that for my husband. He won't do that for my mom or my dad either. I am gathering that he knows it is me. But it is hard to say. There is just so much around. I mean there is a nurse on this side and another nurse on that side. And my husband behind me, talking to me. And I am just trying to be with him. I mean, I just wish they would all shut up, and let me just be his mother.

Sitting beside the isolette, doing all she can to have contact with her child, the mother finds herself unable to be a mother in the deeply felt sense of motherly belonging with child. Although the mother is bodily present, she still finds herself off to the side of the isolette reaching in—looking in at her child without facing the face of her child—unable to touch him with her look. It is true the mother can open the isolette. She can reach in to touch her child. But this is not necessarily the touch of contact.

It seems like the mother needs to overcome the technological barrier of the isolette and its medical accouterments. She is aiming to do just that by trying to look at her child again and again, day after day: speaking to him and touching him. But in spite of all this, her trying does not produce the contact she really seeks. She seems neither able to be *with* her child nor to *encounter* her child in this deeper sense. She is rather reduced to looking *at* her child, who, in her words, is stuck in the isolette on the breathing machine.

We may understand the isolette as a structural thing that houses a child: an external plastic womb. It is designed to be a contained and controlled place of incubation providing warmth, quiet and humidity until the child is ready for the outside world. As a medical device, the isolette is a high-tech plastic box that facilitates medical care. It holds in its inner world the body of the child and a host of medical things.

There are technological artifices directly connected to the child: intravenous lines, breathing tube and monitoring wires. There are other devices placed for caring: syringes, suction catheter and stethoscope. In this way, the phenomenality of the isolette is not just to enclose the child but also to unite the child with the technological: clinical monitoring, artificial nutrition

and various medical therapies. In a Heideggerian sense, the isolette not only gathers what it concretely contains; there are also 'things' that are immaterially gathered as the technology seems to open the parent and others into a technical way of being with the child.<sup>7</sup> The gathering is an existential assembling, a bringing together, of the child with the techno-medical environment itself. For the prematurely born newborn, the technological sustains the child in a clinical place affording the premature transition from womb-world to isolette-world.

The isolette invites the outsider to *look in* by virtue of its transparent fashioning. But when the mother reaches to touch her child, she encounters a barrier, the wall of the isolette. To enter the isolette, she must first unlatch the door. But even after opening the isolette, she still experiences an impediment. The isolette only permits the use of hands and forearms. No real holding. No true embrace. The isolette constrains and constricts, restrains and restricts. As well, the isolette only permits a particular kind of touching. It does not allow the touch of intimacy. The child cannot be held within her motherly arms. The child is held at an arm's length.

Although the isolette may invite the parent to *look* into the isolette or *handle* the child in a particular reaching fashion, there remains a containment to this container. With the doors closed, the isolette dampens the audible urgency of the child's cry. With the cover laid, the child's very bodily being is hidden. To the onlooker of the closed and covered child, he or she may seem shelved away, stored securely in its placement of the room. In this way, the isolette ambiguously prevents nearness as the incubator becomes a sovereign place so that handling the child may become disturbing the child.

As a technological enclave, the isolette is not only an isolating thing as its connectors and openings permit it to be connected to the technical paraphernalia of the NICU. For the parent, the isolette may come to represent the sights, smells and sounds of the NICU as being with the child may become a familiar experience of monitoring screens, antiseptic aromas and machinery sounds. There is a (multi)stability to this device. It may be removed and replaced, resettled into various relations, but once enclosing a child it becomes stable and constructive, constituting aspects of a larger system of relations.<sup>8</sup> This (multi) stability is not the same as neutrality: 'Within multistability there lie *trajectories*, not just any trajectory, but partially determined trajectories' (Ihde, p. 106).<sup>9</sup> For the isolette, the trajectory is this system of relations which may include other objects (infusion pumps, ventilators, monitors) and other people (nurses, respiratory therapists, doctors).

The child may not be easily removed from the isolette without the help of nurses or other medical staff. The operation of the isolette and its connections are the expertise of these professionals. The parent may then find him or herself at the mercy of others to do the simplest of tasks for the child: changing diapers, feeding and so forth. Even touching the child may be felt as a supervised touch under the watchful eyes of others. Perhaps, we can see how the mother may experience herself as an outsider to the relationship of nurse and child. The experiential sensibility of maternity and paternity may become tenuous, fleeting and elusive as true contact remains out of reach.

### THE FEEDING TUBE AND THE CYBORGEAN TOUCH

Technologies, like the feeding tube, seem rather easily passed over, taken for granted, as they more subtly weave into the tactility of technical flesh constituting the medical life world of

a parent and child. Perhaps it is due to their plainness that we easily forget that they too touch a parent's encounter with his or her child.

The feeding tube is one of neonatal medicine's simplest of technologies. It is a flexible, silastic hollow tube usually inserted at the bedside by feeding it into the child's mouth or nostril until its end reaches its destination, the stomach. Secured in place by taping the exterior end to the angle of the mouth, the feeding tube becomes an extra body orifice, mechanically connecting stomach to world, offering a new way to touch the child. Bypassing the voluntary swallowing, the tube orifice is existentially different from the mouth orifice as food and medicines can be pushed slowly or quickly into the stomach by means of hand syringe or infusion pump. In neonatal care, this technology is used extensively as many infants may be unable to safely swallow due to prematurity, illness or some other issue.

Yesterday was a bad day for Amy. Her feeds had been put up quite a bit. More than I would have liked because she spits up a lot and you can see that she does not like eating. Her feeds are my pumped breast milk, all given through the tube, running in over two and a half hours. She gets nothing by mouth. And she has to eat every 3 h so that she really only gets half hour breaks between feeds. So yesterday, again, she was spitting up pretty much all day. I was just covered in it. And she was crying a lot, in pain. Every time the feeds would get started again, she would start fussing and get really cranky because she had got no room in there left. The nurses and doctors, they were not listening to me. I totally understand my child needs the feeds. Really, all I want is for her to be able to just handle the volume and grow. But forcing it through causes her pain. And the nurses and doctors, they just keep going. Pushing the feeds down into her. I finally said, "I am tired of this. You guys need to slow this down. Just look at her!" They agreed and gave her a break.

As feeds are pushed in, both child and mother are in pain. The child seems unable to handle the volume, expelling what is forced in. Although this feed may be the milk of the mother, it does not appear to be experienced as *from* the mother.

It may be tempting to consider the feeding tube on a spectrum with bottle feeding as both devices afford provision of milk *by* another without the intertwining bodily contact and communication between mother and child epitomised in the gesture of nursing:

Never have I been in such close contact with another being's skin, arms, and mouth than during those early weeks of continuous holding and feeding. I made milk, smelled like milk, was sticky with this stuff that was me, but not me, which produced in me the need to give it away (Simms, p. 11).<sup>10</sup>

Still, the feeding tube does more than circumvent the bodily relation of infant mouth to mother's breast. It opens the child to a new technological intentionality whereby milk may be given, pushed into the child, in a technical way.

To provide food by a silastic utensil alters the usual experience of feeding: to touch the child with the intent of nourishing becomes a gesture of contact with the feeding tube. The child cannot seek, suck or turn away from the nipple to control whether or when to feed, how much to feed, and what pace to feed. The vocabulary of latching, pacing and burping is no longer descriptive of the experience. Instead, everything is programmed, controlled and set, as the feeding pump buttons read: start, stop, volume and rate. Feeding becomes scheduled with time on and time off. If feeding is tolerated without issue, the child's being is reduced to a stomach: a passive receiver of programmed nutrients and medicines. The routine of checking if

the child is ready to feed can be relegated to ensuring that the feeding tube is appropriately positioned and secured. The child may not even need to be held as the tube affords an extended distance of feeding. In this way, the tube becomes a bodily orifice of a cyborgian-child.

For the professional and perhaps the parent, this care at a distance has the potential for disembodiment and passing over a more originary ethical kind of caring touch that is encountered in a direct face-to-face encountering relation of a care giver and child.<sup>11</sup> Still, an ethical care of responsiveness and responsibility may transcend the mere provision of nutritive support.

There are things that I notice and know about Amy because I sit with her all day, every day. I know what she reacts to and how she reacts to things. I know she needs to sit up when you are running the feed, that you can't rock her. And that sometimes when she is upset that you need to just hold her. When I have to leave, I find that I just can't leave because the nurses and the doctors do not see her as I do. To leave is to leave her alone in pain. There is nobody who really knows her, nobody to hold her like a mother can hold her. It is just that I get so tired and I need to sleep. So on days like yesterday, I stay as late as I can. But even then it never feels like long enough.

The mother sees and feels the child's pain with her motherly body. When the child struggles with tolerating the feeds or the feeding tube, it may be difficult for the parent to watch his or her child struggle against the feeding tube insertion: thrashing, retching or literally grabbing to pull out the tube. Once inserted and secured, the child may throw or spit up the tube along with any undigested feed residual contained in the stomach.

The mother sees and worries. Yet, we cannot so easily accuse this technology of disrupting parental sensitivity and sensibility. Obviously, the child is supported by the technology of the tube for its critical medical needs. The mother is interlaced with a techno-scientific world of seeing her child, of knowing her baby. Her maternal body seeks for a genuine contact with her baby's body. It should be possible to accommodate and harmonise these different needs. The tube need not introduce a disembodied relation, but rather could mediate a new form of a technically embodied relation, a relation where responsibility of contact may remain. As the feeding tube is woven into the relationship of parent, professional and child, the professional may need to heed the mother's reminder to also 'just look at her!'

We may wonder further if there is more to this new feeding tube orifice, as it opens the child to a technical way of feeding, and opens and broadens the nurturing relation to a host of others—nurses, physicians and dieticians—who may see the child differently than the parent. The tube can turn into an issue for quarrel as the healthcare professional oversees supplies, directs feeding, and gives the orders to increase or decrease the volume. Thus, the parental expertise of knowing the child maternally needs to be balanced with the medical expertise of knowing the child's physiological needs.

### THE BRAIN IMAGE AND THE TECHNICAL TOUCH

The children of the NICU form a diverse population. Looking at each child with a medical eye, the healthcare professional may get a sense of the reasons for admission. Some children are quite small, being born too early; others behave abnormally or appear ill, from incidents incurred before, during or after transition from the inner-womb to outer-world. A few appear obviously malformed, marked by physical stigmata of syndromes and the remaining who appear well are admitted for

observation or for convalescence at the end of their hospital stay. At times though, external signs are insufficient. A technical image may be required to better perceive and understand a particular part of a child.

Brain images can be produced by ultrasound, CT or MRI. All of these technologies have their own technical advantages and disadvantages, providing various degrees of and differences in resolution. In common, they produce images to be read by the technological eye of the expert. But what does a parent see who is shown an MRI of his or her child demonstrating brain damage?

I am not an expert, a doctor or someone with medical training. But, I can see what is shown to me, and what it means. I could see what they were showing me in the MRI of his brain. One side did not look like the other. The details of the one side were gone, and it was obvious to me that the damage was severe. It was like half the brain was obliterated into a mess of blurry white and grey. They said it showed a combination of blood and damaged brain tissue. It was horrible. Devastating. How can a child mature and develop when such a huge portion of the brain is damaged? What kind of future can he have? Now my son no longer looks the same. My son looks different after I saw that picture. It is as if the whole future, the planning, the expectations, everything has changed. He has now become that picture.

Looking at the MRI image, the father is afforded a uniquely technical view of his son. But he sees more than the technical image. It is not an outside view in the sense of another look at the head (and face) of his child from yet another perspective. It is not an apperception proper. There is rather a hermeneutic quality to this view, showing an image that, while being of the child, it is not the child *as* his child. While the father may be unable to name cerebrum, thalamus, cerebellum or other structural elements of the brain, his technologised eye does see *parts* of the *whole* of his child: parts that are damaged to the point of obliteration. In these damaged parts he sees a future or more accurately perhaps he sees a broken future. As well, his child no longer looks the same. While the medical specialist sees with a (dia)gnostic eye, the father sees with a pathic eye.

The gnostic eye is different from the pathic eye. The pathic eye sees the body meaningfully: innocent and vulnerable, disfigured and hurt. When a father or mother just see their child at the bedside, they do not see a body transparent and opened by the medical imaging equipment. Rather they see a closed body. They see their child in recognition of his or her familiar features. They see the marks, scars and other bodily traces as memories of pain and hopeful anticipations. The pathic eye sees caringly, lovingly or worryingly.<sup>12</sup> The technological eye is a purely gnostic eye, visualising and seeing the child's brain in constructive radiographic resolution. It is the eye that sees the world in terms of diagnostic images and pictures, to be analysed, examined, probed and questioned.

In seeing the brain image, the father's ordinary pathic vision of his child is disrupted. It would seem that the MRI favours the diagnostic and prognostic eye at the expense of the parental pathic eye. The technical intervenes and insinuates itself in place of the pathic as if it is filling an existential void. The eye is drawn to the abnormal, the parts or structures of injury and damage. In a sense, the child's childness has become invisible. The parent may ask: What part has been injured? What function was it responsible for? And what will be the consequence? The MRI may lead us to ask what is wrong with the child rather than what is right, as the parent is drawn into the medical considerations of diagnosis and prognosis.

Yet, while the MRI shows only a picture of parts, this is perhaps not only what the father sees. After all, *everything* has changed. The future has been put into question, perhaps in some related way to the presence of the naked face putting the spontaneity of the parent into hesitation. What child has been given as this image? What child is this? The imag-ined child or the child of the real?

The brain image becomes the picture of anticipation. The full meaning of the picture may remain in question—the exact future of the child remains imprecise and tentative—but there is no doubt that the father's child is changed by the MRI. The child is now marked by an aberration: imaged as damaged and imperfect. The image has revealed a truth of the child: his brain is damaged. In this way, the MRI technology has brought an aspect of the invisible visible child into presence.

It should be clear that the way the MRI reveals the child to the parent is different than the non-technical way a parent comes to know his or her child. The MRI does not allow the arising of something from out of itself as the child would naturally be given to parental experience over the course of time (*physis*). Rather, the MRI brings the child forth in the Heideggerian sense of a technical *poiesis*.<sup>13</sup> It is a bringing-forth not of the child in his or her ownmost being, but rather an interrupting and challenging bringing-forth. It is a technological *poiesis* whereby the MRI challenges the natural *physis* of the child. In this sense, the child is perhaps revealed by the MRI to be the child of lost dreams, lost hopes and lost anticipations. How does the parent now gaze upon the child? And if the child can gaze back, how may their gazes meet and be sensed?

Without the MRI, a parent sees his or her child as he or she develops over time. The child's strengths and challenges may only be revealed and discovered gradually. In the absence of this technology, it is only in being with a child, in spending time with him or her that a parent may come to know that his or her child has injuries. This is perhaps even more so true for a child in the NICU who gives less of himself or herself to the world.

Consider the infant born early, not quite prepared to interact with others in the same manner as the full-term child. A premature child may provide only elusive cues and subtle responses to the caring onlooker. The preterm child may lack motor maturity, fluidity of movement, unable to suck and swallow. While the term child may calm to recognisable voices, the preterm child may be characterised by the stilled calmness of immaturity in sleep-wake and attention–interaction states, seemingly never quite able to become fully awake and open to those around.

Also, the care giver's response may be inappropriate or overlook what the immature baby may be sensitive to. The premature child may only sooth to the steady pressure of well-placed hands mimicking the containing uterus rather than the well-meaning sensitive stroking of the child's brow or hand. This relational difference may also be true of the sick or damaged child whose interaction is restricted for cause of illness, brain injury or even a consequence of the medical technologies needed to sustain the child: sedation, paralysis and so forth. In this context, as risks are naturally higher for adverse outcomes, the parent may look for technological information to *supplement* the common knowledge that comes with experience.

The MRI supplement is more than an addition of information. The supplement is the image and representation of nature that is neither in nor out of nature.<sup>14</sup> Once seen, it is necessarily seen. The significance of the MRI supplement carries the meaning of the Latin *supplementum*, as something added to supply for a *deficiency*. This is radical in the sense that our view

of the child without the MRI image is lacking and thus deficient. Without the MRI image our understanding of the child's being is not whole. In other words, prior to the MRI image, the child has been given to the parent as marked by a non-presence, an undetermined condition. This undetermined condition is the unknown of expectation, opportunity and future. Will the child excel in football or mathematics? Will she marry one day? Will he take after his father or his mother? Will she get a good education? The eidetic nature of the MRI is the provision of a supplement that supplies this deficiency. It transforms the expected of the child in the sense of it showing not just how the child is at this moment in time, but also giving the child in advance of the child: a sense of anticipation of the future to come. In this sense, the MRI gives the non-expected of the child to fill an un-expected expectation.

The role of the supplement is ambiguous. It provides an additional view of the child, but the question is how and to what extent this extra image of the child is helpful in contributing to the parent–child relation:

It is the strange essence of the supplement not to have essentiality: it may always not have taken place. Moreover, literally, it has never taken place: it is never present, here and now. If it were, it would not be what it is, a supplement... Less than nothing and yet, to judge by its effects, much more than nothing. The supplement is neither a presence nor an absence. No ontology can think its operation (Derrida, p. 314).<sup>14</sup>

As presence (un) necessary supplement, there is an absolute *affectivity* and *alterity* to the MRI image as it *affects* and *alters* the father's relational experience to his child. In seeing the image of the child, the representation, who or what is it that the father sees? For in the moment of seeing the image, the father may not see the child he had known in the initial or imagined contact. Indeed, everything has changed, as the imaged child is now the anticipated imaged child. It is both the child present before him, but also the child he will come to know: to touch and be touched by. Perhaps in this way, the MRI may be contaminating of the originary perception of the child as a welcome *other*. The MRI gives the child technically.

## FURTHER REFLECTIONS

It would seem that NICU technologies may have a bearing on a parent's experience of his or her child and that NICU technologies (as most technologies) are not merely usefully instrumental in their consequences: they carry *ethical* significance.

A distinction may be made between the ethical significance and the *moral* relevance of technologies. The moral relevance speaks to the way that technical devices open up (*effect*) new possibilities for human actions in the sociopolitical order of things. In medicine, we may consider the use of certain technologies as creating the possibilities for moral dilemmas. For example, the availability of the isolette and associated equipment effects the opportunity to provide medical care to infants born extremely premature at the threshold of viability. And as a moral dilemma, the parent and professional must then weigh the implications of these technical innovations as the risk of morbidity (such as severe disability) may call into question the appropriateness of technological intervention.

This moral relevance of NICU technology is ultimately founded on what is ethically significant: the lived (technical) experience of the other. The way that these technologies may subtly shape the experience of the other may have ethical consequences as sensibility itself may be touched. In other words, the techno-medical materiality may incur ethical

morbidity by virtue of its significance in the being and becoming of the parent and the child. Thus, ethics as formative for morality speaks to the fact that these technologies *affect* our actions: rendering ethical relevance as morally relevant. In other words, how we experience the other (the affect) may meaningfully influence the way we act on the other (the effect). This technical sensibility, the substance of this paper, is complex.

While we may be unable to ask a child directly how his or her sensibilities are touched by NICU technologies, we may wonder about the existential consequences of these technologies for the newly born child. After all, newborns come into the world with a need for touch: a symbiotic sensibility between parent and child that is usually met in the skin-to-skin holding and nurturing of the child. It would even seem that the very young child does not yet distinguish between its own skin and the skin of the care giver. The mother's breast and skin is part of the symbiotic self-other. The psychology and anthropology of touch and bonding signifies the importance of the subtleties and complexities of contact. But the experience of holding, touching, gazing and mutual sensing may be hindered or helped by the NICU technology. The newborn in the isolette may lack the opportunity for this primordial contact that is critical in the shaping of the deeply human. The feeding tube may be medically necessary and yet obstruct the sensibilities of pleasure, desire and rhythm of the nurturing being of child and the mother. And the brain image may show the parent a child marked in such a way that prior, present and future sensibility is called into question by what has been revealed in the picture. Merleau-Ponty speaks about the interplay of touch and perception as humanising crossovers.

A human body is present when, between the see-er and the visible, between touching and touched, between one eye and the other, between hand and hand a kind of crossover occurs, when the spark of the sensing/sensible is lit, when the fire starts to burn that will not cease until some accident befalls the body, undoing what no accident would have sufficed to do (Merleau-Ponty, p. 125).<sup>15</sup>

I have tried to raise issues of the modalities and meanings of the crossing of touch and gazes in the technics of contact in the NICU. Stiegler has suggested that technics, the technologies that keep us warm and fed and comfortable, are the ancient humanising forces in the history of humanity and the development of human communities.<sup>16</sup> In the NICU, the ontology of technics is the medical expression of these old and modern anthropological technologies. We need to be cognizant how these technologies may put in question the humanising meaning of contact between parent and child.

Of course, it should be clear that the highly technologised environment of the NICU is not inherently problematic, as these technologies all have their important healing and life-saving clinical uses. The incubator is critically important to provide an environment for supporting the child, just as the feeding tube may be necessary to provide nutrition for the child. As well, advances in medical imaging have allowed new understanding of illness and aid in delivering medical therapies. So, I do not mean to question the utility of neonatal medical tech-

nologies but to show the possibility for technologies to have more than their intended effects.

These explorations, therefore, aim to speak prudently to the formative value of phenomenology: not what phenomenology *tells us*, but rather what it does *with us*. As a reflective practitioner gains insight into the ways these technologies may leave traces on the parent-child relation, hopefully, this same practitioner will become more thoughtful and tactful in his or her dealings with those pathic dimensions of clinical practice.<sup>12 17</sup> After all, in the context of the NICU these technologies have the potential to open a way of being in which the professional may contribute to the sensitive, developing relation of a parent and child.

**Acknowledgements** I am very grateful to the parents who generously shared their experiences for this study. I also thank Wendy Austin, Paul Byrne, Catherine Adams and the John Dossetor Health Ethics Centre staff for their ongoing guidance and support.

**Contributors** Please note that this piece is original writing, has not been previously published and is not under consideration for publication elsewhere. MvM is the sole author and declares no conflicts of interest.

**Funding** Canadian Institute for Health Research (CIHR). CGS-D. Salary Support.

**Competing interests** None.

**Patient consent** Obtained.

**Ethics approval** Ethics approval was provided by University of Alberta Health Research Ethics Board.

**Provenance and peer review** Not commissioned; externally peer reviewed.

## REFERENCES

1. Merleau-Ponty M. *Phenomenology of Perception*. New York, NY: Routledge & Kegan Paul, 1962.
2. Van Manen M. *Researching Lived Experience: Human Science for an Action Sensitive Pedagogy*. London, ON: Althouse Press, 1990.
3. Toombs SK, ed. *Handbook of Phenomenology and Medicine*. Dordrecht, NL: Kluwer, 2001.
4. Lingis A. *Foreign Bodies*. New York, NY: Routledge, 1994.
5. Buytendijk FJ. Some aspects of touch. *J Phenomenol Psychol* 1970;1:99–124.
6. Levinas E. *Totality and Infinity: An Essay on Exteriority*. Pittsburgh, PA: Duquesne University Press, 1969.
7. Heidegger M. *The Thing. Poetry, Language, Thought*. New York, NY: Harper & Row, 1971:161–84.
8. Ihde D. *Technology and the Lifeworld: From Garden to Earth*. Bloomington, IN: Indiana University Press, 1990.
9. Ihde D. *Bodies in Technology*. Minneapolis, MN: University of Minnesota Press; 2002.
10. Simms EM. *The Child in the World: Embodiment, Time, and Language in Early Childhood*. Detroit, MI: Wayne State University Press, 2008.
11. Van Manen M. Care-as-worry, or "don't worry, be happy". *Qual Health Res* 2002;12:262–78.
12. Van Manen M. The pathic nature of inquiry and nursing. In: Madjar I, Walton J, eds, *Nursing and the Experience of Illness: Phenomenology in Practice*. London, UK: Routledge, 1999:17–35.
13. Heidegger M. *The Question Concerning Technology and Other Essays*. New York, NY: Harper & Row, 1977.
14. Derrida J. *Of Grammatology*. Baltimore, MD: John Hopkins University Press, 1976.
15. Merleau-Ponty M. Eye and mind. In: Johnson GA, ed, *The Merleau-Ponty Aesthetics Reader*. Evanston, IL: Northwestern University Press, 1993:121–50.
16. Stiegler B. *Technics and Time, 1: the Fault of Epimetheus*. Stanford, CA: Stanford University Press, 1998.
17. Van Manen M. Phenomenology of practice. *Phenomenology & Practice* 2007;1:11–30.