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# **Are You Ready to Meet Your Baby? Phenomenology, Pregnancy, and the Ultrasound**

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## **Abstract**

Iris Marion Young's landmark paper on the phenomenology of pregnancy chronicles the alienating tendencies of technology-ridden maternal care, as the mother's subjective knowledge of the pregnancy gets overridden by the objective knowledge provided by medical personnel and technological apparatuses. Following Fredrik Svenaeus, the authors argue that maternal care is not necessarily alienating by looking specifically at the proper attention paid by sonographers in maternal care when performing ultrasound examinations. Using Martin Heidegger's philosophy as a theoretical lens, the authors argue that sonographers who cultivate technical mastery, build patient rapport, explain the process and significance of the ultrasound, and understand the patient's world are able to provide excellent patient care. The authors utilize Hans-Georg Gadamer's hermeneutics to show how sonographers can frame the ultrasound in a way that acknowledges both the subjective knowledge of the mother and the objective data obtained by the sonographer through the use of technology. Ultimately, the authors argue that the common practice of framing the ultrasound as the chance to "meet the baby" is inappropriate, as it exacerbates the tendency to regard objective knowledge as the only legitimate knowledge in medical contexts. They recommend a more balanced approach that elicits a fusion of horizons between the patient's subjective knowledge and the objective data that are obtained by the sonographer via the ultrasound, thus respecting and bolstering patient autonomy.

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## Keywords

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In 1984, Iris Marion Young published her landmark paper on the phenomenology of pregnancy wherein she chronicles the mother's privileged access to the experience of pregnancy that is partially displaced and overtaken by technology-ridden maternal care. Young criticizes what she experienced as the objectifying and alienating tendencies of modern medicine during her experience with pregnancy. Fredrik Svenaeus has argued persuasively that Young's perspective is too critical of modern medicine, noting that not all maternal care is necessarily alienating. We argue that proper maternal care may not only be non-alienating, but can preserve and even bolster the dignity of the mother by looking specifically at the proper attention paid by sonographers in maternal care when performing ultrasounds. We provide four essential aspects to excellent patient care to guide sonographers in clinical practice: 1) technical mastery, 2) building patient rapport, 3) explaining the process and significance of the examination, and 4) understanding the patient's world.<sup>1</sup> We then show that the common practice of framing the first ultrasound as the chance to meet the fetus for the first time is misguided, since it exacerbates the tendency of medical professionals to regard objective knowledge as the only legitimate knowledge in medical contexts, thus potentially intensifying the feelings of alienation of the mother. We recommend a more balanced approach that acknowledges both the subjective experience of the pregnancy on the part of the mother and the objective data provided by medical devices using Hans-Georg Gadamer's hermeneutics as a guide, which we supplement with Edith Stein's work on the phenomenology of empathy.

### The Phenomenology of Pregnancy

In her article, "Pregnant Embodiment: Subjectivity and Alienation," Young (1984) notes that narratives of the experience of the mother during pregnancy have been almost entirely lacking in Western societies. Her explicit goal is to remedy this by providing a phenomenology of pregnancy, that is, a description of what it is like to be pregnant from the perspective of the mother. In the process, Young provides an account of her own experience with pregnancy, as well as several narratives culled from seldomly referenced diaries and literature. In combining the various narratives that come forth, Young notes four aspects of the mother's experience of pregnancy: 1) the mother's privileged access to the creative process; 2) the dislodging effects that accompany the changes of the mother's body; 3) how such effects induce wonder; and 4) how wonder has the potential to invoke an innocent narcissism on the part of the mother.

First, Young (1984) describes the experience of the first fetal movements as only accessible to the mother herself: "Only I have access to these movements from their origin, as it were. For months only I can witness this life within me, and it is only under my direction of where to put their hands that others can feel these movements. I have a privileged relation to this other life" (p. 48). The reddening and tenderness of the nipples and breasts, swelling of the belly, nausea, cramping, and other aspects of the initial phases of pregnancy are entirely new for the first-time mother and only experienced by the mother herself. Thus, the mother not only has a privileged

access to this experience, others who attempt to gain any access at all to the experience in the early stages require guidance on the part of the mother. Moreover, any access to the experience of pregnancy on the part of the other can only be partial and can never surpass or replicate the experiential knowledge of the mother. As the fetus continues to grow, the mother changes along with the fetus, and these changes lead to what Young (1984) refers to as a dislodging effect: “My automatic body habits become dislodged...In pregnancy my pre-pregnant body image does not entirely leave my movements and expectations, yet it is with the pregnant body that I must move” (p. 49). Formally seamless everyday activities like tying one’s shoes become difficult as the requisite movements needed to bend over become challenging. To use the language of Martin Heidegger (1927/1962), one of the foremost phenomenologists who has had a clear influence on Young’s work, one can say that one’s taken-for-granted everyday ways of “being-in-the-world” are disrupted, thereby prompting reflection on the part of the mother. This reflection may inspire the mother to wonder what is going on with her body and the fetus developing within: “The pregnant woman experiences herself as a source and participant in a creative process ... though she does not plan and direct it” (Young, 1984, p. 54). The fact that the woman is merely a participant, and not a director, means that the development of the fetus and the correlated changes to the mother’s body are not entirely controllable nor exhaustively knowable. Young argues that this lack of control and lack of complete knowledge leads to a sense of wonder, and this wonder may induce an innocent narcissism: “As I undress in the morning and evening, I gaze in the mirror for long minutes, without stealth or vanity. I do not appraise myself, ask if I look good enough for others, but like a child take pleasure in discovering new things in my body” (Young, 1984, p. 53). The narcissism is not of the usual egotistical sort since it is induced by wonder at the not-entirely manageable changes that accompany the growth of the fetus from within.

### **“Objectified Observables”**

On the whole, Young’s portrayal of the mother’s experience of pregnancy is positive, as it includes the privileged access to a wonderfully creative process. Indeed, pregnancy provides the mother access to a beautiful and unique experience that opens up a new world for the mother in terms of her identity and understanding. Although there are clearly uncomfortable aspects that fundamentally alter the mother’s sense of being-in-the-world, these aspects are typically tempered with a sense of resilient care for the soon-to-be-newborn or embraced with a sense of wonder. Nevertheless, Young argues that the new and beautiful world that the mother has embarked upon becomes tainted with the introduction of technology-ridden maternal care, which she argues is objectifying and alienating.

Before we discuss Young’s critique, we should note that the concerns of technological advancements in medicine are not new. In 1816, the French physician René Laennec introduced the stethoscope for enhancing the superficial examination of internal organs. Although this technical innovation was intended to preserve the patient’s privacy, many physicians worried that the stethoscope would diminish physician-patient relationships as the doctor was “increasingly an active interrogator of the body,” as opposed to the doctor serving as a biographer of the patient’s narration with an eye towards restoring health (Rice, 2010). In other words, the initial worry was that technological apparatuses like the stethoscope would lead to an increasing objectification of the patient as a body and a subsequent decrease in the understanding of the patient as a person.

The stethoscope was followed by other technological medical devices that are able to provide a glimpse into the inner aspects of the body: the x-ray was discovered by Wilhelm Röntgen in 1895, the first practical commercial ultrasound machine was patented by Walter Erich Krause in 1965, the first commercial computed tomography (CT) scanner was developed by Godfrey Hounsfield in 1971, and the first advances in medical resonance imaging (MRI) were made by Raymond Damadian in 1978. In short, doctors practicing in the era of modern medicine now have an impressive array of technological devices at their disposal to examine the human body, thereby increasing the possible modes of bodily objectification on their patients. With more precise instruments in medicine, there is an increased temptation to focus on the measurements in order to collect accurate data, as opposed to focusing on the patient as a person. This temptation to focus on collecting scientific data, as opposed to eliciting the patient's narrative, can be alienating for the patient. As Kevin Aho (2018) notes, "what scientific medicine often fails to acknowledge are the feelings and perceptions of the [patient] as they are expressed, lived, and made intelligible within the context [of] his or her world" (p. xvi). While there has been a recent resurgence in the emphasis on the importance of acknowledging and respecting the patient as a person within all medical contexts, the very nature of modern medicine always leaves open the possibility of objectification given the fact that diagnoses are largely based on data, not feelings.

Young zeroes in on two ubiquitous technological aspects of routine maternal care in modern medicine that allow for bodily objectification: the ultrasound, which provides reliable data regarding the dimensions of the fetus, and the fetal monitor, which records the duration and intensity of contractions of the mother. Given these technologies, Young (1984) states, "the woman's reports are no longer necessary for charting the progress of her labor" (p. 58). In other words, the worries that were noted as early as the introduction of the stethoscope have started to come true: in Young's eyes, the locus of knowledge shifts from the subjective sphere of the mother to the objective sphere of medical technology. The consequences of this shift are significant according to Young (1984): "Such instruments transfer some control over the means of observing the pregnancy and birth process from the woman to the medical personnel. The woman's experience of these processes is reduced in value, replaced by more objective means of observation" (p. 58). Looking specifically at the fetal monitor, Young argues that the mother's subjective sense of the intensity of the contractions is no longer important: the intensity is more accurately depicted by the monitor itself. The monitor cannot lie, as it were, while some mothers may be more sensitive to pain than others or less attuned to one's body and therefore misreport on the intensity of the contractions. Regarding the ultrasound, the mother's account of the progression of the pregnancy becomes less valuable than the objective dimensions provided during the ultrasound and depicted in the sonogram. Young (2005) sums this up in her postscript to the article:

These objectified observables come to be defined as the authoritative knowledge of the process of gestation and the state of the fetus, and thereby the pregnant woman's privileged insider knowledge comes to be devalued .... Sonogram technology makes it possible for anyone to experience fetal movement by looking at the same projected image. The pregnant woman's experience of that image is just the same as anyone else's who views it. This shared and shareable experience of the fetus tends to have more status as 'reality' than the feelings only she can report. (p. 61)

The objectified observables come to be “the truth” in regard to the status of the fetus, while the subjective feelings of the mother come to be seen as somehow “less.” In the words of Heidegger, “Only that which becomes object in [the scientific] way *is*—is considered to be in being” (1938/1977a, p. 127). The account of the mother is regarded as *merely* subjective and therefore not as authoritative.

Essentially, Young’s account of the alienating tendencies of modern maternal care has three stages. First, the subjective experience of the mother is de-emphasized in favor of the objective measurements of technological apparatuses. Second, due to this shift, there is an appropriation of control on the part of the medical professional. At this point, the locus of truth resides in the technology and the expertise of the medical professional, as opposed to the mother herself. Finally, the mother feels alienated as her subjectivity is overridden, as she is surrounded by technology that she does not fully understand, is objectified by this technology, and no longer feels that her perspective is valued. As Karl Jaspers (1959/1989) has stated, “The patient sees [herself] in a world of apparatuses, in which [she] is worked up without [her] understanding the significance of the events which are transpiring above [her]” (p. 256). For Young, what was initially a beautifully creative process that invokes wonder has become less wonder-ful.

Young makes an important argument regarding the increased likelihood of objectification of the patient in technology-ridden maternal care. As Peter-Paul Verbeek (2008) states, “ultrasound substantially contributes to the experience of expecting a child, by framing pregnancy in medical terms” (p. 21). The accuracy and precision that technology provides simply cannot be replicated by asking the mother herself what she is experiencing; therefore, there may be a tendency on the part of the sonographer to emphasize the objective collection of data and overlook or ignore the subjective aspects expressed by the mother. We can understand this tendency by looking at the ontological shift that occurs with the introduction of modern technology in medicine by using Heidegger’s philosophy. Heidegger (1954/1977b) has argued persuasively that technology is not simply a means to an end but rather “a way of revealing.” What this means is that the technological devices that are utilized in healthcare reveal what *matters* in the world of medicine in an ordered fashion. In this case, the technology reveals the prioritization of objective and therefore scientific data over subjective and therefore unscientific narratives. Hans-Georg Gadamer (1993/1996), a student of Heidegger, argues that this shift in the prioritization from subjectivity to objectivity allows for the dissolution of personhood:

The loss of personhood ... happens within medical science when the individual patient is objectified in terms of a mere multiplicity of data. In a clinical investigation all the information about a person is treated as if it could be adequately collated on a card index. If this is done correctly, then the relevant data will all uniquely apply to the person involved. But the question is whether the unique value of the individual is properly recognized in this process. (p. 81)

The patient charting that occurs during the visit may include some of the subjective narrative of the patient, especially if the patient is experiencing some discomfort, but for the most part the charting will consist of objective data since this is regarded as what is “really real” in the modern medical context.

How are we to respond to this shift? We should point out with Heidegger (1957/2002) that “we cannot, of course, reject today’s technological world as devil’s work” (p. 40). The technological advances in medicine clearly lead to better health outcomes and should therefore be celebrated, rather than shunned. Since ultrasounds have the ability to reduce mortality and improve patient outcomes for both the fetus and the mother, we should embrace and praise this technology as a society and hone in on our bedside manner as sonographers, as opposed to being too critical of the alienating tendencies of technology-ridden maternal care as Young does in her work. This is why Fredrik Svenaeus (2018b) is right to point out—*pace* Young—that “medical science and the attention of doctors and nurses are not necessarily alienating or oppressive for the patient” (p. 80). Svenaeus also notes that the pictures and videos of the fetus *in utero* can be a very positive experience for the mother, as they are often shared with others and put in the family album (2018b, p. 81). Moreover, ultrasound examinations can give some expecting parents the feeling of being closer and more attached to the unborn, thereby “triggering a process of ‘prenatal bonding’” (Zechmeister, 2001, p. 389). Fathers especially form stronger bonds with the soon-to-be-newborn through ultrasound technology, since seeing the baby on the screen escalates their awareness of the baby, thereby reinforcing its reality (Draper, 2002). At the same time, however, we must be mindful that technological integration in medical settings changes the dynamic of patient care as it reveals priorities that are not necessarily aligned with placing the patient as a person first. Sonographers must be mindful of the effect that technological devices have on the patient experience if they are going to provide excellent patient care, especially in medical professions that inherently involve the use of technological apparatuses. In the next section we outline ways in which sonographers can provide excellent patient care while integrating technology.

### Technological Integration and Patient Care

Certain medical professions necessitate technological integration, which is seen most obviously in medical imaging: radiographers simply need to use diagnostic imaging equipment to perform x-rays, CT scans, and MRIs; and sonographers simply must use transducers and scanners to perform ultrasounds. Mastery of the technology is crucial to providing good patient care, as noted by the Society of Diagnostic Medical Sonography’s Code of Ethics (2017). It is important for sonographers to become so skilled with manipulating the transducers that the transducer almost becomes part of the sonographer’s bodily being as it is, to some degree, nearly an extension of the hand. To borrow language from Heidegger (1927/1962), we can say that, through repeated and skilled practice, the sonographer comes to embody a concerned circumspection [*Umsicht*] with the transducer that is “proximally ready-to-hand as equipment” (p. 200). For Heidegger, concerned circumspection is the “sight” that accompanies the masterful navigation of tools when they are functioning as tools. Just as the master carpenter has a certain sight while hammering, the master sonographer has a certain sight while performing an ultrasound. Above and beyond this “sight” is the fact that the transducer is used as a tool of perception, and not merely as a tool like a hammer. Merleau-Ponty (1945/2002) provides a fitting example of tools of perception when he speaks of a blind person utilizing a walking cane: “The blind man’s stick has ceased to be an object for him, and is no longer perceived for itself; its point has become an area of sensitivity, extending the scope and active radius of touch, and providing a parallel to sight” (p. 165). While a blind person’s stick is admittedly likely more intrinsically related to one’s sense of perception than a sonographer’s transducer, it does lend a nice analogy as to how

the master sonographer may experience the transducer. If the sonographer experienced the transducer as foreign to oneself or as an object that was standing against oneself, attention would have to be paid to the technology, rather than the patient, and this would negatively affect patient care. When the sonographer has a mastery of the equipment, he or she is able to mediate the patient interaction smoothly by task-switching one's attention seamlessly between the ultrasound screen and the patient, thus allowing for the possibility of providing excellent patient care. The transducer, in such an instance, "falls into the background" since the attention is properly given to the patient, and not the technology.

While technical mastery is an important step in providing patient care, it is not sufficient to provide good patient care. Sonographers must spend time getting to know their patients if they are to build the proper trust needed to provide good patient care, as signaled by the Society of Diagnostic Medical Sonography's Code of Ethics (2017). Moreover, different procedures require a different level of patient interaction to ensure a proper level of comfort between the sonographer and the patient. For instance, particular attention needs to be paid to building rapport with the patient before first trimester ultrasounds since they must be performed vaginally. Sonographers must be mindful of the fact that access to one's vagina is deeply private for most people, since such access is only typically shared consensually with significant others or trusted physicians. Thus, it is important for sonographers to explain the examination prior to performing the exam, both in terms of the process of the procedure and its significance. Typically, first trimester ultrasounds are performed to establish gestational dating, to screen for genetic abnormalities, or to check the position and viability of the fetus (Doubilet, 2014). The reason for the exam must be explained clearly to the patient so that the patient is fully aware of the importance of the exam and therefore more comfortable with allowing the sonographer to enter this extremely private realm. In the examination itself, the sonographer places a vaginal ultrasound probe inside the vagina in order to examine the uterus, ovaries, and the growing fetus. Documentation of the fetus includes the fetal heart rate, growth, position, yolk sac, and placenta location (Doubilet, 2014). All of this must be communicated to the patient beforehand, so the patient can understand the procedure and be truly informed as to the process. Moreover, throughout the examination, the sonographer must ensure that the patient's pain and discomfort are minimized, since the vagina is typically sensitive to touch. The sonographer should explain the ultrasound images in language that the patient can understand, as well as be cognizant of the emotional responses offered by the patient (Larsen, Nguyen, Munk, Svendsen, & Teisner, 2000). While documentation of the dimensions of the fetus is crucial in the procedure, these dimensions likely mean very little to the mother. Even anatomic language needs to be adjusted at times to the level of patient health literacy. For instance, one important visualization that sonographers look for in first trimester ultrasounds is an image of the rhombencephalon, which is one of the three major developmental divisions of the brain. Instead of speaking of the confirmation of a rhombencephalon visualization, sonographers should inform the patient that the brain is forming. In this way, the sonographer is respecting that the patient likely does not have the same level of medical literacy and is adjusting his or her language to the context. In general, the sonographer has to be mindful of how the patient is responding to the description of the images and adjust his or her language accordingly.

Sonographers must also be prepared to answer any questions the patient may have regarding the procedure, such as whether or not the ultrasound puts the fetus at risk. Since they utilize sound-

waves, ultrasounds do not pose the cancer risks that are accompanied with radiologic imaging procedures that utilize ionizing radiation; nevertheless they do inherently contain high ultrasound energy that can prove damaging to fetal development. Thus, “special care and reduced scanning times should be used for sensitive tissues such as those found in the embryo (<8 weeks), eye, head, brain, and spine” (Nelson, Fowlkes, Abramowicz, & Church, 2009, p. 145). Sonographers limit the exposure of the fetus to high ultrasound energy levels by adhering to ALARA (as low as reasonably achievable) principles. Specifically, sonographers are trained to use the lowest output power possible to achieve the best image and make scans as short as possible (Society of Diagnostic Medical Sonographers, 2019). This is just another reason as to why the mastery of the technology on the part of the sonographer is important, as the sonographer who has developed careful circumspection will be able to scan more efficiently and thus more quickly, thereby causing less exposure to potentially damaging high ultrasound energy for the fetus. While the risks of ultrasound are typically not high enough to warrant a formal informed consent process, sonographers must be mindful of the energy dosage and should be able to explain these risks to patients who explicitly ask.

If a sonographer is mindful of the risks involved in scanning and has developed the technical mastery of the equipment, he or she is on a solid path to providing good patient care. If the sonographer wants to provide excellent patient care that goes beyond the Code of Ethics of the Society of Diagnostic Medical Sonography, however, he or she must also be mindful of the patient’s world and the patient’s experience during the examination. Young’s description of the phenomenology of pregnancy proves useful in providing some understanding of what it is like for the mother to have privileged access to the experience of pregnancy in all of its wonder. The sonographer who provides excellent patient care is the one who is mindful that the introduction of ultrasound technology is both building an objective account of the pregnancy and—at the same time—eradicating the privileged access to the experience of pregnancy for the mother, thus potentially diminishing the importance of the subjective account of the pregnancy for the mother. Moreover, the objectification involved in the ultrasound does “kill off” some of the wonder in the experience of pregnancy. The more the ultrasound can be framed as a complement to the experience of pregnancy and seen as a way to enhance the bond between mother and fetus, as opposed to a means of objectifying the experience that was otherwise subjective, the less alienating the experience will likely be for the mother. The goal is to respect the unique value of the patient, and we argue that the way to do this is to strike a balance between acknowledging the subjective experience of the mother and providing the relevant objective data during the ultrasound.

### **Are You Ready to Meet Your Baby?**

Unfortunately, given the sometimes myopic focus on objective measures as the sole means to reality, it is common for medical staff to frame the first ultrasound as the chance for the mother to “meet her baby for the first time” (Weir, 1998). Indeed, in their study on first-time pregnant women’s experiences in early pregnancy, Bergbom, Modh, Lundgren, and Lindwall (2017) note that some women did not trust their subjective feelings regarding their own pregnancy and even doubted that they were indeed pregnant until it was validated by an ultrasound image. Thus, both the sonographers and the patients may be under the false impression that only the objective is able to validate reality. Moreover, the very nature of the ultrasound allows for the possibility of



objectification. Sandelowski (1994) notes, “The fetal sonogram depicts the fetus as if it were floating free in space: as if it were already delivered from or outside its mother’s body” (p. 240). However, since most ultrasounds occur before the fetus is viable outside the womb, this presents the false impression that the fetus is isolatable from the mother when the fetus is, in fact, deeply dependent on the mother. The mother, of course, knows this intellectually, emotionally, and is reminded of it physically given all the bodily changes that accompany pregnancy. How can sonographers frame the ultrasound in a way that acknowledges these subjective experiences of the mother in a context that is so geared towards objectivity?

We argue that Gadamer’s hermeneutics provides a fitting philosophical lens to understand the appropriate approach to communication between sonographers and mothers in ultrasound care. Gadamer (1960/2004) understands true communication as a “fusion of horizons” [*Horizontverschmelzung*] between both parties: “Conversation is a process of coming to an understanding. Thus it belongs to every true conversation that each person opens himself to the other, truly accepts his point of view as valid and transposes himself into the other” (p. 387). In order to achieve a fusion of horizons, both the sonographer and the patient must have an attitude of openness in approaching each other during the ultrasound. The patient needs to acknowledge that her subjective experience of the pregnancy does provide some truth and perspective regarding the pregnancy and the status of the gestational process, but that the ultrasound will complement this truth with objective, scientific data. The sonographer must understand that the scientific data that he or she will collect during the ultrasound is undoubtedly important in understanding the gestational process, but that the subjective narrative of the mother also helps frame the experience of pregnancy. If the sonographer is to respond to the particular, unique patient, he or she must not only acknowledge the subjective experience of the mother, but seek out details regarding the mother’s experience if she is to provide excellent patient care. Using language like “Have you felt the baby kick?” or “Do you have a sense as to the sex of the baby?” are appropriate ways to engage these conversations. Ideally, the subjective narrative and objective data complement each other to provide a well-rounded account of the pregnancy. The fusion of horizons occurs when “both partners are ready for it and are trying to recognize the full value of what is alien and opposed to them” (Gadamer, 1960/2004, p. 388). In order to achieve this, above and beyond the openness of the participants, it is helpful if both the sonographer and the mother acknowledge that they are entering the hermeneutical situation from different perspectives, that these perspectives are described using very different languages, and that *both* perspectives have some claim to truth.

The question of the claim to truth is inextricably linked to the question of the claim to authority. Recall that in Young’s critique of technology-ridden maternal care she felt that the medical personnel came to take on authority by claiming access to the “truth” of the pregnancy, thus leading to feelings of alienation on her part (2005, p. 61). Gadamer’s hermeneutics provides a perspective that allows for both the subjective elements of truth to come forth on the part of the mother and the objective aspects of truth on the part of the sonographer and technology. Gadamer (1960/2004) states, “Acknowledging authority is always connected with the idea that what the authority says is not irrational and arbitrary but can, in principle, be discovered to be true” (p. 281). Since the nature of the ultrasound is already geared toward objectivity, sonographers must be diligent in acknowledging the experience of the patient, especially since science has come to

take on an “unassailable and anonymous” authority in the modern age (Gadamer, 1966/1976, p. 3).

In order to overcome the sense that science is the main authority during the ultrasound, we argue that the ideal relationship between the sonographer and the patient is grounded in empathy, and that Edith Stein’s work on the phenomenology of empathy provides a complementary perspective to Gadamer’s notion of a fusion of horizons in the context of the ultrasound. A fusion of horizons can occur when both the sonographer and the patient are open to gaining knowledge from the other in order to arrive at a more holistic account of the pregnancy. In this case, the holistic account includes the experience of the mother and the data obtained from the ultrasound itself. If we are to genuinely elicit a fusion of horizons, the sonographer demonstrates empathy to the patient. Recently, Svenaeus has helped to revive interest in Stein’s work on empathy, which was conducted under the supervision of Edmund Husserl, the founder of phenomenology. Stein defines empathetic acts explicitly as “acts in which foreign experience is comprehended” (1989, p. 6); specifically, Stein attempts to understand how I can “empathetically project myself” into another person’s experience (1989, p. 61). In Svenaeus’s interpretation of Stein, he offers the following helpful question to understand Stein’s project: “Is it enough that I feel and *understand* the experiences that the other person in front of me is undergoing ..., or must I also feel alongside the other person in the sense of somehow *joining* her feelings ... in order for my experience to count as empathy?” (Svenaeus, 2018a, p. 745). In order to differentiate these two, we will refer to “empathetic understanding” as the act of understanding the experiences of the other person and “empathetic feeling” as the act of feeling with another person. Empathetic understanding is more basic than empathetic feeling and essentially involves knowing what one means and having a sense as to where one is coming from. In the context of the ultrasound, the sonographer with empathetic understanding is able to understand the perspective of the patient and know what she has been through in her experience being pregnant. Empathetic feeling is deeper than empathetic understanding and can be explained using Stein’s example of seeing a member of one’s family who is extremely upset, which naturally makes oneself upset, too (1989, p. 23). For Stein, the family member naturally and reflexively responds to another family members suffering with similar feelings oneself. Applied to the context of the ultrasound, the sonographer with empathetic feeling is able to *feel with* the patient and have a similar experience as the patient. We argue that sonographers should seek to ground the patient care in empathetic understanding in order to provide excellent patient care, not necessarily empathetic feeling, although empathetic feeling could come into play in some contexts. For instance, if the patient struggled with infertility and explains this during the ultrasound and thus approaches the ultrasound with a sense of anxiety, the sonographer could also share her story regarding infertility to build patient rapport if she happened to have a similar experience. In most situations, though, the sonographer’s display of empathetic understanding is sufficient, and exhibits proper patient care.

Using Gadamer’s hermeneutics and Stein’s understanding of empathy, sonographers are able to replace the “are you ready to meet your baby?” sort of rhetoric that is currently often found in the initial stages of the ultrasound with language that acknowledges the subjective experience of the mother, which can then be used as a segue for explaining the process and significance of the ultrasound. Once appropriate patient rapport has been established and the patient is fully informed, the sonographer can then proceed with the examination, interweaving acknowledgements of the patient’s subjective narrative of the pregnancy throughout the process. This herme-

neutical approach recognizes that “we must understand the whole in terms of the detail and the detail in terms of the whole” (Gadamer 1960/2004, p. 291). The whole pregnancy, which was hitherto exclusively framed by the subjective experience of the mother, thereby becomes complemented with the detailed precision that comes forth through the measurements allotted by ultrasound technology. If done correctly, instead of an alienating objectification, the mother will experience a more well-rounded understanding of her pregnancy and the gestational process by supplementing her subjective knowledge with objective data.

### Concluding Thoughts

Technological advancements have undoubtedly changed the dynamic of patient-medical professional relationships. Certain medical professionals inevitably must utilize technology, and sonographers in particular rely heavily upon technology to perform ultrasounds and obtain accurate data that affects health outcomes. We provide several ways in which the sonographer can frame the ultrasound in a way that is respectful of the patient’s subjective experience and, ideally, complement the patient’s experience of the pregnancy with objective data, thereby coming upon a more holistic experience of pregnancy. Gadamer’s hermeneutical approach provides an appropriate framework from which sonographers can work, which, when coupled with Stein’s notion of empathetic understanding, can provide an appropriate philosophical lens to approach patient care in ultrasound settings. The fusion of horizons that can occur between the sonographer and the patient in an ultrasound setting can help to stave off the feelings of objectification and alienation that Iris Young chronicled in her landmark work on the phenomenology of pregnancy, thereby allowing the experience to bolster the dignity of the mother and thereby respect her as a unique individual.

### References

- Aho, K. (2018). Existential medicine: Heidegger and the lessons from Zollikon. In K. Aho (Ed.), *Existential medicine: Essays on health and illness* (pp. xi-xxiv). London UK and New York, NY: Rowman & Littlefield International.
- Bergbom, I., Modh, C., Lundgren, I., & Lindwall, L. (2017). First-time pregnant women’s experiences of their body in early pregnancy. *Scandinavian Journal of Caring Sciences*, 31, 579-586.
- Doubilet, P. M. (2014). Ultrasound evaluation of the first trimester. *Radiologic Clinics*, 52(6), 1191-1199.
- Draper, J. (2002). ‘It was a real good show’: The ultrasound scan, fathers and the power of visual knowledge. *Sociology of Health and Illness*, 24(6), 771-795.
- Gadamer, H. G. (1976). The universality of the hermeneutical problem. In D. E. Linge (Ed.), *Philosophical hermeneutics* (pp. 3-17). Berkeley, CA, Los Angeles, CA, and London, UK: University of California Press. (Original work published in 1966)
- Gadamer, H. G. (1996). *The enigma of health* (J. Geiger & N. Walker, Trans.). Stanford, CA:

Stanford University Press. (Original work published in 1993)

Gadamer, H. G. (2004). *Truth and method* (2nd ed.; J. Weinsheimer & D. G. Marshall, Trans.). London, UK and New York, NY: Continuum. (Original work published in 1960)

Heidegger, M. (1962). *Being and time* (J. Macquarrie & E. Robinson, Trans.). New York, NY: Harper & Row. (Original work published in 1927)

Heidegger, M. (1977a). The age of the world picture. In W. Lovitt (Ed.), *The question concerning technology and other essays* (pp. 115-154). New York, NY: Harper & Row. (Original work published in 1938)

Heidegger, M. (1977b). The question concerning technology. In W. Lovitt (Ed.), *The question concerning technology and other essays* (pp. 3-35). New York, NY: Harper & Row. (Original work published in 1938)

Heidegger, M. (2002). *Identity and difference* (J. Stambaugh, Trans.). Chicago, IL and London, UK: The University of Chicago Press. (Original work published in 1957)

Jaspers, K. (1989). The physician in the technological age (A. A. Grogan, Trans.). *Theoretical Medicine*, 10, 251-67. (Original work published in 1959)

Larsen, T., Nguyen, T. H., Munk, M., Svendsen, L. & Teisner, L. (2000). Ultrasound screening in the 2nd trimester: The pregnant woman's background knowledge, expectations, experiences and acceptances. *Ultrasound in Obstetrics & Gynecology*, 15, 383-386.

Merleau-Ponty, M. (2002). *Phenomenology of perception* (C. Smith, Trans.). London, UK and New York, NY: Routledge. (Original work published in 1945)

Nelson, T. R., Fowlkes, J. B., Abramowicz, J. S., & Church, C. C. (2009). Ultrasound biosafety considerations for the practicing sonographer and sonologist. *Journal of Ultrasound in Medicine*, 28, 139-50.

Rice, T. (2010). 'The hallmark of a doctor': The stethoscope and the making of medical identity. *Journal of Material Culture*, 15(3), 287-301.

Sandelowski, M. (1994). Separate, but less unequal: Fetal ultrasonography and the transformation of expectant mother/fatherhood. *Gender and Society*, 8, 230-245.

Society of Diagnostic Medical Sonography. (2017). *Code of ethics for the profession of diagnostic medical sonography*. Retrieved from <https://www.sdms.org/about/who-we-are/code-of-ethics>

Society of Diagnostic Medical Sonographers. (2019). *Scope of practice and clinical standards for the diagnostic medical sonographer*. Retrieved from <https://www.sdms.org/about/who-we-are/scope-of-practice>

Stein, E. (1989). *The collected works of Edith Stein, Volume three: On the problem of empathy* (W. Stein, Trans.). Washington, DC: ICS Publications.

Svenaesus, F. (2018a). Edith Stein's phenomenology of sensual and emotional empathy. *Phenomenology and the Cognitive Sciences*, 17, 741-760.

Svenaesus, F. (2018b). Phenomenology of pregnancy and the ethics of abortion. *Medicine, Health Care, and Philosophy*, 21(1), 77-87.

Verbeek, P. P. (2008). Obstetric ultrasound and the technological mediation of morality: A postphenomenological analysis. *Human Studies*, 31, 11-26.

Weir, L. (1998). Pregnancy ultrasound in maternal discourse. In (M. Shildrick & J. Price, Eds.), *Vital signs: Feminist reconfigurations of the bio/logical Body*. Edinburgh, Scotland: Edinburgh University Press.

Young, I. M. (1984). Pregnant embodiment: Subjectivity and alienation. *The Journal of Medicine and Philosophy*, 9(1), 45-62.

Young, I. M. (2005). *On female body experience: 'Throwing like a girl' and other essays*. New York, NY: Oxford University Press.

Zechmeister, I. (2001). Foetal images: The power of visual technology in antenatal care and the implications for women's reproductive freedom. *Health Care Analysis*, 9, 387-400.

### Notes

1. Throughout the paper, we will use the term "sonographers" to refer to anyone performing an ultrasound in a medical context (e.g., ultrasound technicians, as well as physicians and midwives). We will use the term "sonogram" to refer to the images obtained from ultrasound examinations, and the term "ultrasound" to refer to the ultrasound examination itself.