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Lancaster University Ph.D

Doctoral Thesis

Sonographers' Experiences of Breaking Bad News in Prenatal Ultrasound (A Phenomenological Analysis)

Nicholas Cantlay

BSc (Hons), Diagnostic Radiography St. Martin's College, Lancaster University

Submitted to the School of Medical Imaging Sciences, University of Cumbria In fulfilment of the requirements of Doctor of Philosophy

September 2011

Preface

Declaration

I declare that this is my own work and has not been submitted for the award of higher degree elsewhere.

Nicholas Cantlay

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Thank you to my supervisory team: Lisa Booth, Marian Nicol and Ralph Leavey. Especially Lisa, who inspired me to take on this project in the first place and who trusted me, in the more "foggy" moments, not to get lost. Although she probably wished I had at times.

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Abstract

This project is a study of how sonographers break bad news to women during routine prenatal ultrasound scans. The sonographers' position, with respect to breaking bad news, is unique among healthcare professionals. Prenatal scans are designed to detect foetal abnormalities and are offered to all pregnant women as part of a nationwide screening programme in the UK. Ultrasound in pregnancy is, therefore, a medical test, but unlike most medical tests it has become a social ritual in western culture. Many women view the scan as a chance to see and meet their baby for the first time and to take home a picture. They are generally unaware of its screening function, which means that bad news arrives when it is least expected. The news is often divulged in real-time as abnormalities are detected, and this leaves little time for the sonographer to prepare prior to disclosure. What a sonographer does in the few moments following a positive scan result affects how the news is given and ultimately how it is received. A bad experience can leave women suffering long-term psychological effects. This thesis focuses on how sonographers cope in those few moments.

The impetus behind this research is paucity of empirical work that has, to date, been carried out from the sonographer's perspective. This means there are few evidence-based guidelines available to assist them in the news-giving process. Current protocols, underpinned by research from the medical profession, suggest that health professionals should prepare to give bad news in advance of meeting the patient. Such advice, however, fails to address the immediate and unexpected nature of bad news in the ultrasound scenario. This project offers an in-depth phenomenological

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investigation into the experiences of nine sonographers who have been breaking bad news to pregnant women for between eight and twenty five years. Using Heidegger's fundamental ontology as a framework, the five-stage temporal structure of a routine prenatal scan was revealed, offering an insight into how distressing information might be communicated to women in a genuinely empathic manner. This structure suggests that what happens in the moments following the detection of a foetal abnormality depends on a background of phenomena which are revealed only through a sonographer's particular style of scanning and ethical comportment.

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Abbreviations

ANS	Autonomic Nervous System
ASD	Autistic Spectrum Disorder
BA45	Brodmann Area 45: an area of the lateral surface of the frontal cortex
BOLD	Blood Oxygen Level Dependent: An fMRI sequence used in brain imaging
DRs	Dispositional Representations : a group of potential neural firings in the brain
DR	Detection Rate
EC	Emotional Contagion
ED	Emotional Deduction : consciously theorising about another person's emotional state
EEG	Electroencephalography : a technique for recording electrical activity along the scalp produced by the firing of neurons within the brain
EMG	Electromyography : a technique for evaluating and recording the electrical activity produced by skeletal muscles
ER	Emotional Resonance : directly experiencing another person's emotional state
fMRI	Functional Magnetic Resonance Imaging
IFO	Inferior Frontal Operculum
IPL	Inferior Parietal Lobe
M1	Primary Motor Cortex
MEG	Magnetoencephalography: a technique for mapping brain activity
MN	Mirror Neuron
mPFC	Medial Prefrontal Cortex
NHSFASP	National Health Service Fetal Anomaly Screening Programme
NT	Nuchal Translucency
PAM	Perception Action Model
PM	Premotor Cortex
RCOG	Royal College of Obstetricians and Gynaecologists
RFR	Rapid Facial Reaction : the instantaneous mimicry of a subliminal facial expression
S1	Primary Somatosensory Cortex

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SMH	Somatic Marker Hypothesis
SPR	Screen Positive Rate
STS	Superior Temporal Sulcus
TMS	Transcranial Magnetic Stimulation
V1	Primary Visual Cortex
VAC	Visual Association Cortex
vmPFC	Ventromedial Prefrontal Cortex

CHAPTER 1 Introduction

The fact that sonographers often break bad news to women during routine prenatal ultrasound scans is only just being recognised publicly outside of the profession (RCOG, 2010). Previously, abnormal scan results were communicated by a doctor. The bad news was given to the woman once the sonographer had already completed the examination and the report had been written (Mavroforou et al., 2003). There was an inevitable period of waiting. Before meeting the doctor, the woman would be told nothing of what the scan had revealed. From the doctor's perspective, this interim period had allowed some time to prepare what to say. Such preparation, however, is obviated by the current situation in ultrasound.

Today results are communicated in real-time, which brings a sense of urgency to the interaction between the sonographer and patient during a routine prenatal scan. When an abnormality is detected, what transpires in the subsequent moments can have long-term emotional and psychological consequences for the pregnant woman (Skari et al., 2006; Ahman, Runstam & Sarkadi, 2010). Those few moments are all a sonographer has in which to decide how best to tell the mother the bad news. This thesis focuses on those few moments.

This chapter offers a brief introduction to the key concepts that make the sonographer's situation unique. Indeed, many other health professionals break bad news, but they rarely do it as the news arises. We begin by arguing that current guidelines for communicating bad news, which are based on research by the medical

profession (Girgis & Sanson-Fisher, 1998), lack any relevance to the ultrasound scenario. They lack relevance, primarily because they advocate preparation prior to disclosing results (Baile et al., 2000). Bad news in pregnancy is not only immediate, but unexpected, as the prenatal scan is viewed as a social event, rather than a medical test (Georgsson Ohman et al., 2006). New research is therefore needed to understand the sonographer's position.

The National Health Service Fetal Anomaly Screening Programme (NHSFASP), during the course of this project, have begun to make some headway by producing an online resource to help sonographers communicate abnormal findings during a prenatal scan (NHSFASP, 2010a). Although the empirical data underpinning this resource are unclear, there are obvious links to this research. Even my own, modest contribution to the evolving body of knowledge surrounding the way sonographers break bad news has been acknowledged by the NHSFASP (Maddocks, Powell & Day, 2009, pp.92).

Bad news in pregnancy can range from information regarding a foetal death to the unexpected news that a woman is expecting twins. As Cuthbert & Simpson (2006) point out, "Some information may be universally interpreted as bad news. However, in some situations there will not be a consensus on the meaning. For example, the news that a pregnant woman is carrying twins, or a girl, may be interpreted neutrally by a sonographer and may delight one patient and devastate another" (pp.56). In this respect we must be clear from the outset that "bad news" is a rather tractable concept,

often relying on the subjective interpretation of the information given in a particular context at a particular time. In the medical setting, however, bad news is given a broad definition as: "any news that drastically and negatively alters the patient's view of his/her future" (Buckman, 1992, pp.15). Or, as Eberhardt McKee & Ptacek (2001) prefer: "any news that results in cognitive, behavioural, or emotional deficits in the person receiving the news that persist for some time after the news is delivered" (pp.247). Both definitions suggest that the "badness" of bad news depends on what the patient already knows or suspects about the future, i.e. on the gap that exists between expectation and reality. It is reasonable suggest, however, that in the world of prenatal ultrasound certain situations may embody a universal interpretation of what constitutes bad news: foetal death, for example. That said, a woman who secretly desires a termination would prove an exception. In reality, the majority of situations could manifest a multitude of interpretations relating to the information a sonographer conveys during a prenatal scan. Certain news may be good, bad, or may not even be "news" at all.

The overall aim of this thesis is to address the remaining gap in knowledge relating to the unique situation sonographers face when they break bad news. It is to look closely at the crucial moments following the detection of an abnormality in a real-time situation. Chapter 1 sets the scene. Chapter 2 evaluates the cultural context in which women receive bad news and the preferences they express for receiving information. Following this, a critical review of breaking bad news research is undertaken and an attempt to conceptualise what it means to communicate unwanted information empathically in the healthcare setting is made. By the end of Chapter 3 a philosophical position is reached which links the review with the purpose of this project. The empirical findings of this research are then revealed and discussed.

1.1 Prenatal ultrasound

Women in the UK are offered two routine ultrasound scans during pregnancy: one between 8 and 12 weeks gestation (first trimester) and one between 18 and 22 weeks (second trimester) (NICE, 2008) (Figure 1). This is to ensure that their pregnancies are viable and to check for foetal abnormalities. During the first trimester ultrasound scan, also known as a "dating" scan, measurements are taken which will help to: confirm the pregnancy, date the pregnancy and detect any problems that might occur during the pregnancy (low lying placenta, for example). The second trimester scan, also known as an "anomaly" scan (the word "anomaly" referring to a potential abnormality in the foetus), will check the foetal anatomy in more detail as well as the placenta, umbilical cord and amniotic fluid. For the anomaly scan, sonographers have a list of conditions to look out for, some of which will indicate a foetal incompatibility with life, and others that will be treatable after birth.

There are more than forty known congenital abnormalities which involve structural malformations that can be detected prenatally (EUROCAT, 2009). For gross abnormalities, which are easily visualised, a definitive diagnosis is often provided during an ultrasound scan. This may range from talipes, a condition affecting the feet which can be surgically corrected (Tillett et al., 2000), to the absence of a heartbeat

signalling foetal death. The woman will normally be given the news about the abnormality by the sonographer performing the scan (Statham, Solomou & Green, 2001).



Figure 1. The timing of prenatal ultrasound screening scans and blood tests in the detection of foetal abnormality during pregnancy (adapted from NSC, 2010, pp.2)

Some abnormalities cannot be visualised during the ultrasound examination because they have yet to develop ontogenetically within the foetus. However, subtle clues to their existence might be present. A genetic abnormality (or "karyotype"), for example, can cause minor physiological variations in the anatomy of the affected foetus which are visible on a scan. Although variations can be normal, the amount of divergence they exhibit from a range of tolerable limits will present a statistical possibility that a particular karyotype exists (Yeo & Vintzileos, 2008) This, of course, introduces uncertainty into the communication of ultrasonographic findings. A woman with a normal first timester scan, for example, may receive bad news during a second trimester scan (Roberts & Bhide, 2007). The reverse is also possible. Statistically significant physiological variations in the foetus are known as "soft markers" (Whittle, 1997). Common markers include: nuchal translucency, choroid plexus cysts, mild renal pelvis dilatation, echogenic bowel, single umbilical artery, echogenic foci in the ventricles of the heart and short femurs (Loughna, 2009). Nuchal translucency (NT) is employed in the detection of Down's syndrome (Trysomy 21), and has become the foundation of a nationwide screening programme in the UK (NSC, 2008). Screening often takes place during the first trimester (dating) scan (Figure 1), where NT is performed in conjunction with two other tests: one which measures the amount of beta-human chorionic gonadotrophin, and another which detects the level of pregnancy-associated plasma protein-A (NICE, 2010). Together they form the "combined" test.



Figure 2. Nuchal translucency measurement (Loughna, 2009, pp.127)

The NT is simply the measurement of the amount of fluid that lies under the skin at the back of a baby's neck (Figure 2). All babies have this fluid. However, when the measurement of the translucency exceeds 3.5mm the risk of Down's syndrome is considered to be high, or at least higher than normal (NHSFASP, 2010b). The starting point for the calculation of risk is the mother's age at the time the baby is due: the older a woman is, the greater the risk of the baby having Down's syndrome. For example, the chance of a baby having Down's syndrome is one in 1500 for women who are 20 years old, one in 900 for women who are 30 years old, and one in 100 for women who are 40 years old (NSC, 2010). By combining the results of the NT test and the results of the blood test with the risk based upon age, a calculation of the overall risk for Down's syndrome can be made using a computer software package that takes into account additional maternal factors such as weight and family origin.

Unfortunately, this means that the information given to a woman about a risk factor relies solely on probabily. The bad news of being placed at higher risk (increased risk) of having a baby with Down's syndrome is, therefore, rather vague and can be difficult to understand (Georgsson Ohman, Grunewald & Waldenstrom, 2009). A woman will be placed in the higher risk category if the risk factor is equal to, or greater than, a nationally agreed cut-off level. The current cut-off level in England is a 1 in 150 chance that a pregnant woman is carrying a baby with Down's syndrome (NHSFASP, 2011). In addition to raising anxiety, being labelled "higher risk" can leave women facing the decision of whether to undergo more invasive diagnostic procedures like amniocentesis or chorionic villus sampling (CVS), both of which present further potential risks to the unborn foetus (Mujezinovic & Alfirevic, 2007). The overall risk of a woman having a miscarriage after CVS is around 1 to 2%. This means that about

one or two in every 100 women who have CVS will miscarry. For amniocentesis, the rate is about one in 100 (NSC, 2010). As ultrasound screening is not a definitive diagnostic test (apart from cases of gross anatomical abnormalities) a diagnostic test will always be offered to women if it turns out that their risk of having a baby with Down's syndrome is greater than the recommended national cut-off. The percentage of women with a risk equal to, or greater than, the cut-off is known as the screen positive rate (SPR) (Haddow et al., 2009), and accross NHS trusts in the UK implementing the combined test this currently stands at approximately 2.2% (NHSFASP, 2011). The detection rate (DR), on the other hand, is the percentage of affected pregnancies that are rightly identified as high risk by subsequent diagnostic tests. This is expected to be around 90% of pregnancies falling within the 2.2% SPR in the UK (NHSFASP, 2011).

As ultrasound technology has progressed, the investigation of foetal anatomy has become more detailed. In turn, physiological variations have become more distinct and the numbers of soft markers able to be visualised has risen (Getz & Kirkengen, 2003). Knowledge about the relevance of these soft markers has, however, lagged behind (Carolan & Hodnett, 2007). The continuing evolution of the technology suggests that inconsequential findings may be reported more frequently in the future and, thus, bad news become more prevalent. The potential for bad news, however, is already significant. As many as 35,000 pregnant women each year in the UK may encounter problems affecting their baby's development (Kirwan, 2010) and in a low-risk population the detection rate for abnormalities can be as high as 5% (Skupski et al., 1996). We can speculate that the task of breaking bad news during a prenatal scan

could become even harder for sonographers.

1.2 Why bad news in prenatal ultrasound is unique

The majority of people who undergo medical testing expect to be told the results. The results may often be unfavourable, particularly if a person has experienced specific symptoms prior to the test. In fact, the symptoms may have prompted them to have the test in the first place. Bad news, therefore, may come as no surprise. Screening tests, such as those aimed at cancer detection, often leave patients waiting for their results, the bad news arriving after the person has had several weeks to reflect on the various possibilities that await them (Department of Health, 2007). Their doctor, in addition, will have had time to collate the evidence and present it in a digestible format with a suitable prognosis. This means that the person having the test and the doctor ordering the test will have had time to prepare themselves prior to the results being revealed.

The prenatal scan - essentially a test for detecting foetal abnormalities - is different from the majority of medical tests on a number of counts. First of all, bad news in pregnancy is rarely anticipated (Lalor, Begley & Galavan, 2008). Second, the results are often disclosed immediately as the scan unfolds (Maddocks et al., 2009). Third, a definitive diagnosis/prognosis generally materialises only after a more invasive diagnostic test has been carried out (amniocentesis, for example). Fourth, both the sonographer and the patient have little time to prepare for the moment the bad news is revealed (Saviani-Zeoti & Petean, 2007). Fifth, at least two lives are always directly affected by the bad news (the mother and the baby). And the sixth and most striking difference is that, unlike prenatal ultrasound, the majority of medical tests are not eagerly anticipated social occasions (Baillie et al., 2000).

Admittedly, some similarities with prenatal ultrasound exist among other professions in the medical field. Optometrists, for example, typically complete a full assessment of the oculovisual system within one appointment, which, as Spafford, Schryer & Creutz (2008) point out, necessitates "a seamless shift into information disclosure" (pp.17). This could relate to serious conditions such as retinal detachment leading to blindness. Such news can elicit a grief-like response from the patient (Morgan, 2012). The ability of the optometrist to prepare the patient and rehearse what to tell them is thus diminished. In endoscopic procedures, like ultrasound, real-time imaging is employed which can reveal macroscopically clear, although histologically unproven pathologies, rather like the "soft markers" found during a prenatal scan. These pathologies can reveal cancerous growths, and patients will frequently ask for the results once the examination is complete (Schoefl, 2008). As endoscopists are typically not informed about what the patient already knows this places them in a difficult situation, which is why they generally reserve the duty of disclosure to the responsible clinician at a later date (Schoefl, 2008). Although similar in its real-time environment, endoscopy differs from prenatal ultrasound on a number of counts: patients rarely enter an endoscopic examination without some cause for concern, photographic mementos are generally not offered or requested, and the procedure is often painful, requiring some form of sedation. In other words, the social aspect of a prenatal ultrasound examination is absent from an endoscopic examination, or, for that matter, an oculovisual examination.

Ultrasound has become an accepted *social* norm and an expected part of pregnancy for the majority of women in the west (Nicol, 2007;Mitchell, 2004), which undoubtedly contributes to the unexpected nature of bad news when it occurs. Women can suffer a grief-like response to bad news during a scan which is characterised by denial (Korenromp et al., 2005) and this can lead to long-term psychological morbidity if they are handled poorly (Surkan et al., 2008). The sonographer's task is to minimise the woman's distress as much as possible at the time of disclosure. But without appropriate guidelines to help them, they often face this challenge alone and with little support.

One question we might ask is: how can sonographers be successful at breaking bad news considering the circumstances they face? The very nature of a real-time scan robs them of the vital period of preparation that general guidelines for breaking bad news advocate (Wittenberg-Lyles et al., 2008). It would be amiss, however, to presume that a lack of time to prepare during a scan meant that all sonographers were destined to fail. Preparation may indeed elicit certain advantages but, we could argue, it may not be the sole foundation of every successful bad news encounter. Sonographers, somewhere, must be triumphing in the face of adversity.

Since they gradually took over the task of breaking bad news more than ten years ago (Hollingsworth & Daly-Jones, 2003), sonographers will have developed their own

methods, based on their own experiences and within the context of their particular professional and social environments. It is unlikely that all sonographers will break bad news the same way, but their individual successes may amount to a valuable body of knowledge, which, when shared, could improve the practice as a whole. One of the aims of this research is to tap into that knowledge.

1.3 Breaking bad news research

Although sonographers face a unique situation when they break bad news, surprisingly little research has been carried out from their perspective, although the needs of women receiving bad news during pregnancy have been well documented (Alkazaleh et al., 2004). It is also a feature of the literature that the general experiences of patients receiving bad news - particularly those suffering from cancer - have been attended to (Salander, 2002). So have the needs of the doctors who break the bad news to them (Ptacek, Ptacek & Ellison, 2001) and the nurses who care for these patients afterwards (Mcilfatrick, Sullivan & McKenna, 2006). The way sonographers break bad news during a prenatal scan, however, is still something of an enigma. Perhaps this is because sonographers occupy a "middle ground" somewhere between the traditional diagnostic role of the patient afterwards. To this end, the sonographer's role, which evolved only over the past decade, has started to gain recognition as something warranting serious research (Butler, 2008; Petersen & Jahn, 2008).

Giving unexpected and immediate news in a real-time situation is different from giving it in a planned doctor-patient interview, and for that reason the efficacy of applying current guidelines to immediate and unexpected situations should be viewed with caution. Current guidelines, after all, were developed by investigating the way oncologists communicate with cancer patients (Buckman, 1992). SPIKES - a widely used protocol for breaking bad news - emerged from research looking specifically at how these results were communicated (Baile et al., 2000). It was developed to help the *planned* interaction between physician and patient, where an element of expect bad news when they have a prenatal scan. At best, they expect to find out the baby's sex and go home with a picture (Mitchell, 2004).

SPIKES

- 1. Set up the interview
- 2. Assess the patient's **P**erception
- 3. Obtain the patient's Invitation
- 4. Give Knowledge and information to the patient
- 5. Address the patient's Emotions with empathic responses
- 6. Strategy and summary

Figure 3: Stages in the SPIKES protocol for breaking bad news (Baile et al., 2000)

SPIKES dominates current guidelines because the research behind it constitutes the bulk of research into breaking bad news (Ptacek & Eberhardt, 1996). Figure 3

provides an overview of the stages in breaking bad news that the SPIKES protocol suggests. Sonographers, however, have always had to deal with giving unexpected bad news in a situation that could not be planned. How they have adapted to this situation, and whether they have done so successfully, is something we currently know very little about. Finding out will be the main challenge of this research.

1.4 The aims of this project

Sonographers' experiences of breaking bad news will form the main body of this research. By adopting an interpretative and phenomenological method, our investigation aims to gain an insight into the unique situation sonographers face with respect to breaking bad news during a routine prenatal ultrasound scan. We shall endeavour to find out how they cope with the crucial few moments following the detection of an abnormality, what they feel constitutes good (or bad) practice, how they have learned to give bad news, and how they have taught others to do it. In the end we seek a foundation for, or at least an understanding of, the type of training that might be developed in the future. This foundation can only emerge from the knowledge sonographers have developed from their own unique and direct experience.

CHAPTER 2 Literature Review: Practical Issues

2.1 Introduction

In Chapter 1 we suggested that ultrasound has become a routine part of pregnancy in the UK and an expected and socially accepted ritual for the majority of pregnant women. This is a somewhat unusual premise considering the fact that prenatal ultrasound is a screening tool used to detect a variety of foetal abnormalities (RCOG, 2000). Down's syndrome is but one familiar example. The implicit acceptance of prenatal ultrasound in the face of its diagnostic role highlights a dual nature: on the one hand it is an eagerly anticipated social event, and on the other it is a medical investigation which, of course, has the potential to unearth bad news. Taking this duality into consideration, one might expect the prenatal scan to be viewed with a degree of ambivalence by the women to whom it is offered. Surprisingly, this does not appear to be the case. In fact, most women actually look forward to having a scan. It is often an opportunity for them to meet their baby for the first time and to take home a memento (Lalor, Begley & Galavan, 2008).

The visual confirmation of pregnancy is a powerful phenomenon which has been associated with increased maternal-foetal attachment (Sedgmen et al., 2006). It can also transform a mere "foetus" into a "social child" (Williams et al., 2005). From the mother's perspective ultrasound is a remarkable way of both confirming pregnancy and allaying fears about foetal wellbeing. It may also have replaced "quickening" (the first physical signs of foetal movement) as the traditional introduction to motherhood (Alhusen, 2008). The majority of women in the UK consider ultrasound to be a necessary part of antenatal care, and not something that they could easily refuse when offered (Hundt et al., 2008). In the UK prenatal ultrasound *is* a routine part of being pregnant.

However, another side to this story emerges when one considers the assumption that women have a choice whether or not to accept prenatal scanning. It starts with the premise that the medical profession market ultrasound as an option that can be dismissed (Kirwan, 2010). Ultrasound, after all, is "offered" rather than "prescribed," and women are told that it is their *choice* whether they accept it or not. The facts are laid out in an ever increasing amount of booklets, charts, and electronic media designed to inform women prior to making that important decision (NHSFASP, 2010c). They are warned that abnormalities may be discovered and that ultrasound can lead to more invasive and risky procedures (amniocentesis, for example) in order to produce a confirmed diagnosis. As the technology has constantly improved the number of potential abnormalities that can be detected has risen (Getz & Kirkengen, 2003). In turn, the detailed information available to women has become more prolific.

Ultrasound is a test, and it is the duty of the person performing the test to ensure that it works to its full potential. For sonographers, this means that if an abnormality exists it is their professional duty to find it. One could argue that this is just another facet of the medicalisation of pregnancy in the western world (Oakley, 1984) and that it illustrates that pregnancy - once a natural event for women in our society - has evolved into a medical phenomenon. Diagnosis and control are key factors in any

medical scenario, and they invariably lead to some form of cure (Buckman, 1992). Within this paradigm, foetal abnormalities have become a problem that can be detected and treated. Yet the treatment is at the discretion of someone other than the "patient" (i.e. the foetus), which can leave parents with difficult decisions to make (Statham, Solomou & Green, 2001). Often the only "cure" may be a termination (termination of pregnancy for foetal anomaly (TOPFA)), which introduces further potential anxiety (Davies et al., 2005).

Women, however, could always "choose" not to have a scan. In doing so they could evade the potential psychological pitfalls of prenatal screening. Unfortunately the routinisation and normalisation of ultrasound within the present western culture has left little scope for such choice (Seavilleklein, 2009). In the current social environment, prenatal ultrasound screening has become synonymous with responsible parenting, and to decline it, for many women, would be tantamount to "choosing" not to be a good mother (Carolan, 2008).

We could also argue that marketing prenatal ultrasound as a choice may actually have made it more attractive. Bryant et al. (2007) suggest that framing its offer as a decision might be more appropriate, and may promote informed consent. Indeed, choices conjure up a notion of something on the periphery of our normal, everyday existence. A choice generally represents something additional: something we could benefit from, or just as well live without. A choice, in other words, is optional. A decision, however, is usually confined to a range of compulsory alternatives. Particularly where binary decisions are concerned.

The offer of prenatal scanning could be said to exemplify a binary decision if one considers the context in which that offer is made. Take, for example, the context of a western medical culture. Such a culture has taken prenatal scanning to its heart and inadvertently made it a social norm (Nicol, 2007). A "norm" is not a choice. Rather, it is something that constrains choice by shaping an individual's needs and preferences. Bicchieri & Muldoon (2011) suggest that norms serve as criteria for selecting among alternatives and that such criteria, when shared by a culture, embody a common value system. In other words, people may choose what they prefer, but what they prefer conforms to social expectations. The question we must ask is: has the expectation of ultrasound during pregnancy limited the range of options for women to that of "being," or "not being" a good mother? And does this really constitute a choice or an unavoidable decision to do the right thing? To find an answer we shall look more closely at what we mean by social norms and how they influence choice related behaviour.

2.2 Social norms

According to Talcott Parsons' (1951) theory of the socialised actor, norms embody a common value system which exists prior to, and also constrains, the individual. This value system provides a basis for a shared understanding of what it means to behave appropriately. It provides certain standards of conduct. Yet these standards do not have to be overtly learned, they can simply be absorbed during an individual's socialisation

into a particular culture. In fact, people often do not realise that their behaviour, and the choices they make, are the result of covertly operating normalised standards. "Most of these standards," Goffman & Best (2005) say, "are unthinkingly and consistently maintained by adults; they are likely to become aware of these norms only when a freak accident occurs" (pp.168). What this indicates is that it is only when one is challenged to think about why a particular choice was made, that one becomes aware of all the antecedent influences.

Sheena Iyengar, a professor at the Columbia Business school, illustrates this phenomenon with respect to fashion. Iyengar (2011) points out that when one makes a seemingly autonomous choice to buy an item of clothing, that choice has been engineered months in advance by designers, forecasters and retailers. "On the one hand," she says (pp.150), "forecasters were claiming advance knowledge of customer choice and basing these claims on some rather dubious premises... On the other hand, they were making it easier for people like me to 'choose' fashion trends and colors by reducing the number of options." Can we draw an analogy here with prenatal testing? It was, after all, the medical profession - i.e. the "healthcare designers" - who introduced ultrasound screening to the UK population, possibly on the assumption that women would want to test their future offspring for potential abnormalities. One could question the validity of such a premise. Regardless of the answer, it seems that by creating the socially acceptable norm of ultrasound in pregnancy the medical profession may have unwittingly narrowed women's choices to one of two options: to be, as we said earlier, a "good mother" by accepting it, or "bad mother" by declining

it.

2.2.1 The power of norms

Bicchieri & Muldoon (2011) suggest that norms influence behaviour because, through a process of socialisation that starts in infancy, they become part of one's motives for action. The German existentialist philosopher Martin Heidegger (1927/1962) proposes the notion that a shared intelligibility results from absorbing one's identity from the culture and automatically following the standards set out by that culture. The latter, he calls "Das Man" or, as Dreyfus (1991) appropriately translates it, "the one" (pp.152). "The common sense of 'the one' knows only the satisfying of... public norms and the failure to satisfy them" (Heidegger, 1927/1962, pp.334). For example, in the UK one generally eats a roast dinner with a knife and fork, sitting at a table; not with one's hands, lying on the floor. There is no hard and fast "rule" that states the latter is not possible, it is just not what "one" does.

Heidegger (1927/1962) calls the conformist tendency in humans "distantiality" (pp.164), as it reflects the awkwardness experienced when one deviates from the normal, average way of doing something. On the one hand conformism can have a positive function in establishing social order and a shared intelligibility of the world, but on the other it may lead to a lack of innovation, originality and ultimately the suppression of authentic living. Norms generally originate from unique or innovative action which eventually evolves into a culturally accepted "standard" way of doing something. This standardisation, Heidegger calls "levelling" as it reduces the

intelligibility of something to a level that everyone will understand. "Everything that is primordial gets glossed over as something that has long been well known. Everything gained as a struggle becomes something to be manipulated. Every secret loses its force" (Heidegger, 1927/1966, pp.165). All that is left are the average, everyday norms. When prenatal ultrasound was developed it would have been innovative, unique and its potential as a screening tool may have captured the imagination of the medical profession. Now, it appears, it may simply be what "one" does when one is pregnant.

2.2.2 The propagation of norms

Evolutionary models have been introduced to account for the propagation of norms (Alexander, 2007). Indeed, the success of the human race may owe a lot to the development of cultural norms for tool use (Ambrose, 2001). As a species, humans are still relatively "young" yet our prolific use of tools has allowed us to develop complex societies and dominate the planet. Even our closest cousins, the chimps, exhibit a strong tendency to quickly develop and conform to cultural norms related to tool use within groups. Their much smaller neocortex has, however, precluded the possibility of world domination. Whiten, Horner & De Waal (2005) found that when one chimp is shown a particular method of using a specific tool to obtain food from a piece of apparatus and then returns to their group to demonstrate it, the others quickly adopt the same method. Some chimps develop alternative methods, but after a while, they eventually return to the method which reflects the group norm.

Humans, it is safe to say, have evolved beyond a natural penchant for mimicking each other's methods for obtaining food (although the success of the "supermarket" has to be acknowledged). However, in terms of human existence which is, to say from an existentialist perspective, the ontological assumption that the essence of our being is essentially self-interpretation (Heidegger, 1927/1962), there are certain norm related activities that we share with chimps. According to Dreyfus (2000) Heidegger's basic thesis is that "(1) people have skills for coping with equipment, other people, and themselves; (2) their shared everyday coping practices conform to norms; (3) the interrelated totality of equipment, norms and social roles form a whole which Heidegger calls 'significance'; (4) significance is the basis of average intelligibility; and (5) this average intelligibility can be further articulated in language" (pp.156). Points 1 and 2 could easily apply to chimps, whereas 3 to 5 are human as they relate to human existence, i.e. the way we define ourselves through our engagement with the world, and to some extent by the social roles we adopt. The "norms" in this sense are so basic that they constitute a pre-ontological understanding of being, as opposed to a thematised rule based understanding of social interaction.

According to Parsons (1951), such hidden norms are propagated from adult to offspring as part of the socialisation process. "Almost immediately a role is ascribed to him [the new born infant] which includes expectations of his behavior," Parsons tells us.

If such a mutuality of interaction is established by imitation, as Meltzoff & Moore

(1989) observed, and that this imitation is underpinned by innate mechanisms, then the socialisation process may begin from birth. In fact, this is what Parsons himself suggests: "Imitation is the process by which specific items of culture, specific bits of knowledge, skill, symbolic behavior, are taken over from a social object in the interaction process" (1951, pp.211).

Parsons, however, is focused on conscious imitation and thereby overlooks the rich background of non-conscious mimicry that can occur very early in life (McIntosh et al., 2006). "It takes considerable maturation," Parsons (1951) says, "before the infant has a high capacity for imitation" (pp.216). From Parsons' perspective, one could argue that mimicry remains at the "chimp" level and may not be sophisticated enough to allow the transmission of more complex cultural skills such as how to behave at a dinner party for example. Yet this does not mean that innate mimicry has no value in the transmission of cultural norms. On the contrary, it may provide a solid foundation for the complexities of socialisation in adulthood. As Parsons suggests, the latter may occur on a new level: "... it is necessary for the actor to acquire more specific orientations relative to the specific situations and expectations of his adult roles; there is a further process of socialization on a new level. A very important part of this consists in the acquisition of the more complex adult culture of sophisticated knowledge, technical skills, and canons of expressive orientation, tastes and standards of taste. It may be presumed that in detail the paramount learning mechanism in these acquisition processes is imitation, since in the higher societies the level of complexity and sophistication of what has to be learned is such that individual creativity as the
primary process is out of the question" (1951, pp.236).

When women began to accept the offer of prenatal ultrasound testing after its initial introduction, some form of social mimicry may have been responsible for its rapid rise to "cultural norm" status. And once established, the reluctance to deviate from the norm may have helped to secure its place. However, norms do change, although, as Bicchieri & Muldoon (2011) point out, change will often occur slowly and only through intensive social interaction. Normative beliefs, they suggest, are positively correlated to actions, and whenever such beliefs change, behaviour will follow. To truly offer prenatal ultrasound testing as a choice, providers, it seems, may have to alter the way in which they directly engage the women they seek to take up their offer. Change itself may only result from the concrete situation of direct involvement, a situation which is generally manifest at the first booking consultation with the midwife, where procedures are explained and informed consent is obtained.

2.2.3 Changing norms

According to Fisher & Chon (1989), Durkheim (1961) sees society as a "fact," a "force" which imposes itself on man, constraining his behavior but at the same time enriching it. This describes, quite well, the norms of which we previously spoke and the general influence of Heidegger's "Das Man." The latter, of course, has the potential to provide both the positive function of a shared intelligibility and the rather more negative potential for mindless conformism and the suppression of authentic living. The question we must ask is: how should we go about making authentic

choices when our scope for options is artificially narrowed by societal constraints? Perhaps one solution would be to change those constraints by effectively altering the accepted norms.

As cultures develop and societal organisation occurs, a number of beliefs become shared. The latter become integrated with what Fisher & Chon (1989) refer to as a "primordial collective consciousness that is born of extreme but coordinated collective agitation" (pp.4). Such collective activity results, according to Durkheim (1984), in a "determinate system with a life of its own... independent of the particular conditions in which individuals find themselves" (pp.39). It is into this determinate system that people are born, or "thrown" to borrow a term from Heidegger (1927/1962), and are subsequently moulded by the collective consciousness. Eventually individual perspectives will develop in line with each person's own interpretation of their being, albeit within the limited possibilities afforded by their particular culture. As Durkheim (1984) says, "... individual differences, at first lost, mixed up in the mass of social similarities, begin to emerge, take shape and multiply... Yet this growth in the psychological life of the individual does not weaken that of society, but merely transforms it" (pp.285). The transformation of which Durkheim speaks is the change in norms which occurs over time, for example when fashions or languages change.

Unfortunately, Durkheim (1897/1951) suggests that acting outside particular norms (which is a precursor to innovation and change) may, in extreme cases, lead an individual to commit suicide. This occurs because society has apparently failed to

regulate the seemingly unlimited desires of the individual and a state of *anomie* ensues. Anomie is not unlike Heidegger's (1927/1962) concept of *anxiety*, which occurs when "dasein" (Heidegger's word for human-being) realises the groundlessness of its existence, an existence which has been dictated by cultural norms (Das Man). However, in the grip of anxiety, dasein can chose to flee back to a tranquillising life dictated by the norms and live inauthentically as a "oneself," or hold on to anxiety and live authentically, being free to exist in a unique, rather than an average way. Of course, in the latter situation the norms would still provide a source of shared intelligibility but no longer lead to conformism. Suicide requires the exerted pressure of societal norms, and would probably occur as dasein flees back to Das Man but no longer finds solace in its tranquillising nature. "It is already a matter of public acceptance that 'thinking about death' is a cowardly fear, a sign of insecurity on the part of dasein, and a sombre way of fleeing from the world. *The "one" [Das Man] does not permit us the courage for anxiety in the face of death*" (Heidegger, 1927/1962, pp.298).

Authenticity, however, in its capacity to free human beings from this pressure would render suicide unlikely, as in authenticity, death, as "the possibility of the impossibility of any existence at all" (Heidegger, 1927/1962, pp.307), becomes a force which drives us to make every new possibility our own. As Heidegger says, "In being-towards-death, dasein comports itself *towards itself* as a distinctive potentiality-for-being" (1927/1962, pp.296).

Perhaps it is only an authentic person that can change accepted norms by creating a uniquely appropriate way of doing something which has previously been accomplished in an average way - i.e. as "one" would do it. Authenticity may modify the way social reality is created by the members of a society, albeit on a background of tacit taken-for-granted norms (Garfinkel & Sacks, 1970). To be authentic in the context of accepting or declining a prenatal ultrasound scan may, as we suggested earlier, rely on the social context of the way the scan is offered, i.e. during the booking consultation with the midwife. Silverman & Gubrium (1994) urge that we should "...view social context as a practical achievement, first and foremost - an achievement the analysis of which makes visible the concrete workings of social structures, on the one hand, and the communicative formats of subjectivity, on the other" (pp.194). Although the norm of "acceptance" could be considered as a social structure guiding choice, we must also consider subjective influences that are inherent in the woman's unique, individual situation.

Silverman & Gubrium (1994) infer that the sociality of human beings is manifest in what they do and how they do it; in their practical engagement with each other and with the world in general. It is only when we can see *how* the social context is achieved through this engagement that we can ask *why* a particular context exists. This, in turn, brings into focus the external (objective) and internal (subjective) influences that guide its formation. However, the authors warn that studying social interaction from either an exclusively subjective or objective perspective could provide too narrow a focus and overlook what is important. i.e. that there exists a

more fundamental middle ground. "Too much social theory and methodology sets up artificial polarities," they say, "which provide ready-made solutions. These polarities stop us from carefully attending to practice as a middle ground" (pp.195).

When a woman makes a decision about prenatal testing, her interaction with the midwife may be influenced by the "external" societal norm of accepting testing because, as we suggested earlier, having an ultrasound scan is "what one does when one is pregnant." This sets up a normative frame within the interaction, i.e. the normative understanding that accepting prenatal testing is tantamount to being a "good mother." Yet, the woman's decision may also be influenced by "internal" subjective factors relating to her personal situation. How the midwife responds will further change the context of the interaction and the influence of the normative frame on the woman's decision. The midwife may be guided by her own normative framework which may be to encourage high uptake rates (Dahl et al., 2006). She may also respond from her own subjective interpretation of the interaction, for example, as a woman who has been through pregnancy herself, if, indeed, that is the case. (It is noted that some midwives may be male.) The point is that the normative frames of the social interaction only represent the general situation, yet the actual context of the situation is moulded by the participants themselves. It is, as Silverman & Gubrium (1994) suggest, a practical achievement of the people involved. This means that the outcome *should* depend on the concrete social encounter rather than the prevailing norms.

It is in the concrete social encounter that, according to Silverman (1970), "... participants continually shape and re-shape the pattern of expectation by means of their actions. For, as they act, they validate, deny or create prevailing definitions of the situation. In doing so, they are influenced by the changing stock of knowledge in the wider social world, by their own particular interpretations of the situation, and by the form of their attachment to the existing system" (pp.196). It follows, that if the norms go unnoticed then attachment may be high and their influence may be strong. As Heidegger suggests, the more covertly the norms operate the more they guide our behaviour, yet the less obvious this becomes: "The more openly the They [Das Man] behaves, the harder it is to grasp and the slier it is, but the less is it nothing at all" (1927/1962, pp.166). On this basis we might suppose that women will have ultrasound scans because that is what "normally" happens in pregnancy, and midwives will encourage them to do so because that is a "normal" part of their professional role. Until the norms are noticed and then challenged the present culture of acceptance of prenatal testing may prevail.

When a woman accepts prenatal screening she may, as we suggested earlier, simply be making the decision to be a responsible mother. In this context Bryant et al. (2007) are correct to suggest that prenatal testing should be framed as a "decision," particularly in light of the cultural significance that the ultrasound scan holds. But is this not contrary to the current endeavour by providers to market it as a choice? Although the difference between the two perspectives appears subtle, it arises from two very different conceptions of the prenatal scan. On the one hand the scan is an optional

screening tool, and on the other it is an unavoidable social norm. The argument underpinning the former is clear: ultrasound is a test and its results can provide additional knowledge to facilitate future plans. Unfortunately, the reason why ultrasound has found itself so firmly ensconced within the social milieu of pregnancy in the UK is not so clear. Perhaps the way the scan is described by healthcare providers plays a part. Screening which is recommended as routine and safe, after all, can bias a woman's decision in favour of accepting it (Press & Browner, 1994). This may be another facet of western medical culture. Looking at the wider cultural perspective may elucidate why prenatal ultrasound may currently be seen as a decision, rather than a choice.

2.3 The scanning culture

The premise for the following argument is that the medicalisation of pregnancy is a cultural phenomenon, as is the socialisation of the ultrasound scan into the lives of pregnant women in the UK. Both, we could suggest, embody cultural "norms," although they undoubtedly exhibit opposing goals. Such goals, of course depend on which perspective one adopts: that of the woman, or that of the medical institution. Women seek reassurance that their baby is normal (Bricker et al., 2000) while diagnosticians strive to find what is abnormal. If an abnormality exists, then the two opposing goals are spectacularly revealed the instant that bad news has to be communicated. Detraux et al. (1998) describe this pivotal point in time as a "critical moment," during which normal routine breaks down. If the critical moment passed unnoticed then the problems associated with breaking bad news during a real-time

ultrasound scan would not be recognised. Recent work undertaken by the UK Fetal Anomaly Screening Programme (NHSFASP, 2008; NHSFASP, 2010a), however, suggests that the critical moment *is* a cause for concern, and that the problems associated with breaking bad news during a prenatal scan *should* be given serious consideration.

Prior to the late 1990s, sonographers in the UK were forbidden to divulge abnormal results during a prenatal scan (Witcombe & Radford, 1986). Instead, there was an interim period during which a doctor would be sought to break the bad news to the pregnant woman. This allowed the doctor a little time to prepare, but the lack of feedback made the period of waiting stressful for the woman (Reading & Cox, 1982). This situation is still reflected in institutions outside of the UK, where non-disclosure of information during a scan is practiced (Van der Zalm & Byrne, 2006; Walker, Miller & Dalton, 2008). The way bad news is communicated in the UK has now changed, as the recent recommendations from the Royal College of Obstetricians and Gynaecologists (RCOG, 2010) - that sonographers should communicate abnormal findings during a scan - suggest. From this we can infer that the cultural norms guiding the way bad news is communicated during a scan must also have changed. These norms can only have evolved during the past ten years and have resulted from the development of sonographic practice. The driving force behind this change, therefore, has been the sonographers themselves. Yet how it has worked is something we know little about.

An abundance of knowledge exists about the culture of breaking bad news in general, and this has been documented mainly by the medical profession (Ptacek & Eberhardt, 1996). Yet whether the practices that inhere within it can be suitably applied to the world of prenatal ultrasound is a matter of debate. The striking difference between a doctor-patient interaction and a sonographer-patient interaction, as we have seen, is the period of time between gaining the results of the test and communicating them. For a doctor the period may be days or even weeks (Chiarelli et al., 2005), but for a sonographer it can be seconds. This may be one reason why the culture of breaking bad news in medicine has developed an advocacy of preparation (Buckman, 1992; Baile et al., 2000). Preparation is the first step in breaking bad news well according to the majority of relevant guidelines (Wittenberg-Lyles et al., 2008). Without preparation, the inference is that one is unlikely to guide the patient to a suitable outcome, encompassing both the medical prognosis as well as the psychological sequelae of receiving unwanted information (Sweeny & Shepperd, 2007). From this perspective, sonographers would certainly be put at a disadvantage by the immediacy of their situation.

2.3.1 Differing cultural attitudes towards prenatal ultrasound

Until now we have only focused on the culture of prenatal scanning in the UK. This culture is probably quite familiar to us. So familiar, in fact, that it may be difficult to form an objective opinion about. For the majority of people socialised into a western culture, routine imaging of a foetus is rather "normal." Yet real-time diagnostic ultrasound has only been available since the 1970s (McNay & Fleming, 1999), which

makes it a fairly new phenomenon - compared to pregnancy, that is. Perhaps the great pace with which the technology has developed and our even greater willingness to accept it belies its rather unnatural status.

In Africa the widespread use of prenatal ultrasound is fairly uncommon and can be viewed with trepidation by pregnant women (Tautz & Jahn, 2000). This is partly because the practice of seeing the foetus during pregnancy is still in its infancy and restricted to small areas of the continent where there are pockets of wealth. The prenatal scan is a long way from becoming normalised in African culture. To gain any form of implicit acceptance, ultrasound would have to overcome a long heritage of superstitious beliefs and practices surrounding pregnancy (Packer, 2002; Nassau, 1904/2007). Tautz & Jahn (2000), after introducing a group of Botswanan women to ultrasound, found that the immediate environment of the scan had a surprising effect. The dim lighting of the examination room evoked feelings of danger and many of the women worried that the equipment would harm their baby. The gel was perceived to have powerful medical properties which allowed the baby to be seen. Some women even thought they might die.

The testimony of the Botswanan women opens up a new perspective on the position of prenatal scanning in western culture and is a striking example of how the familiarity that the west - in particular the UK - has developed with prenatal ultrasound appears strange in a society which views pregnancy as a natural, rather than a medical, event. As little as forty years ago prenatal ultrasound in the UK was unheard of, yet now it is

as integral to the process of pregnancy as giving birth itself. This suggests that cultural norms can develop quickly and instil themselves covertly into everyday life.

In Israel, as in the UK, there has been a mass acceptance of prenatal testing. In fact, the popularity of prenatal screening has caused elective testing to triple every five years since 1992 (Sher et al., 2003). It appears that Israeli women have not only accepted routine testing but are actively seeking it out. A study by Remennick (2006) suggests that the fashion for prenatal testing in Israel stems from a deep seated fear of having a sick or "socially unfit" child. Many Israeli women worry that there is inadequate support for such children in their society and that having a child with an abnormality is a burden which prenatal screening can help them to avoid. Ultrasound's screening function probably accounts for why it has become an accepted part of pregnancy in Israel. Could this be considered its unique selling point or "USP?" (USP being a marketing term to describe one aspect of a product which makes it desirable (Reeves, 1961)). Perhaps there is some aspect of the general culture which dictates the "USP" of prenatal ultrasound in each society. In Israel, this may stem from a cultural sensibility of *avoidance* where foetal abnormalities are concerned. In the UK it may stem from reassurance about foetal wellbeing (Lalor & Devane, 2007). And in Botswana it may turn out to be something entirely different given the opportunity.

Prior to the routinisation of prenatal ultrasound in Denmark, the situation was similar to that in Israel. As little as five years ago the majority of Danish women elected to have prenatal testing because they wanted to avoid the possibility of having a child with Down's syndrome (Gudex, Nielsen & Madsen, 2006). The Danes considered Down's Syndrome to be justification for abortion. They still do (Froslev-Friis et al., 2011). The decisions taken by both Israeli and Danish women to avoid having children with abnormalities (like Down's syndrome) are a reflection of the cultural attitude in both societies. Such "avoidance" is a cultural norm, and prenatal ultrasound offers a way of maintaining that norm. In this respect it finds its USP and secures itself a cultural niche.

Holland is relatively close to Denmark (about two hundred miles from border to border), yet the attitudes of Dutch women toward prenatal testing are remarkably different from those of the Danes. In Holland, pregnancy is seen as a natural event and ultrasound plays a minor role (Muller et al., 2006a). Many Dutch women choose not to have prenatal scans - not because they are actively rejecting the medicalisation of pregnancy, but because routinised medical investigation of the foetus is something they are not familiar with. The Population Screening Act (HCN 1999) forbids testing for foetal disorders that can neither be treated nor prevented, and this may be one reason why Nuchal Translucency (NT) testing has never been routinely offered in the Netherlands. A "natural" pregnancy is, however, an accepted cultural norm in Dutch society. On the whole, Dutch women do not feel the need to seek reassurance about the wellbeing of their unborn children through ultrasound. When they are offered ultrasound screening (specifically the NT test) the uptake is relatively low at 46% (Van Den Berg et al., 2005), compared to 69% in the UK (Rowe et al., 2008). In terms of becoming a cultural norm in Dutch society, prenatal scanning does not appear to

have found its USP. In some respects this is similar to the situation in Iceland, although many Icelandic couples decline NT testing because they do not feel Down's Syndrome warrants abortion (Gottfredsdottir, Bjornsdottir & Sandall, 2009). Routine scanning, however, is quite normal.

The idea that the wider cultural attitude of a society can prevent aspects of prenatal scanning from becoming normalised is an interesting concept when one considers the situation in Ireland. According to Lalor & Begley (2006), the majority of women in Ireland, although they accept routine ultrasound screening, appear to be unprepared for adverse findings. This may have something to do with the influence of religious values on state policy over many decades which has ultimately led to the illegalisation of the termination of pregnancy for foetal abnormality (TOPFA) (Oaks, 2003). It is not unreasonable to assume, therefore, that religious values have affected the wider cultural attitude dictating the way that individuals within Irish society should behave - particularly in relation to pregnancy. The question is: why has this not prevented the normalisation of prenatal ultrasound screening, considering that its primary purpose is to detect abnormalities which, to all intent and purpose, justify abortion? This leaves a "test" without a "cure," thus diminishing the screening element of ultrasound in favour of its social status.

Screening, it has been argued, will only be successful if TOPFA is widely accepted as a way of managing foetal abnormalities (Bricker et al., 2000). Lalor, Begley & Devane (2006) suggest that there is a "cultural acceptance" in Ireland that not all babies are born perfect and that this is reflected in the lack of provision of information regarding the screening aspect of the prenatal scan. The majority of women in Lalor, Begley and Devane's (2006) study, believed that information regarding potential abnormalities would simply make them more anxious. Yet, assuming that everything is going to be normal would undoubtedly intensify the shock of bad news when it arrived. The wider cultural attitude regarding the overall preservation of life (acceptance of abnormalities and outlawing of abortion) has, despite its inherent opposition to prenatal testing, still allowed ultrasound to become a cultural norm in Ireland. Yet, for this to happen there has been a certain amount of denial regarding its capabilities as a diagnostic investigation, and this has been reflected in the lack of suitable information available to engender informed choice.

Most of the Irish screening programme recommendations have come from the UK (Lalor, Begley & Galavan, 2009), where there is a general consensus that ultrasound provides reassurance about pregnancy for the majority of women (Ahman, Runstam & Sarkadi, 2010). It follows, that women, on the whole, approach the scan with the intention of having a positive outcome (i.e. a negative test result). Fortunately, in a low-risk population the chances of this happening are high (around 95-98%) (Skupski et al., 1996; Kirwan, 2010). Treating ultrasound as a method of reassurance, however, is not the same as treating it as test. The reverse, in fact, is true: to provide reassurance ultrasound must fail to find abnormalities. To successfully screen them out it must detect them, and when it does there needs to be a contingency plan or "cure" in place (like TOPFA, for example). However, with the odds in favour of a negative test

result/reassurance it is little wonder that prenatal ultrasound has become a part of British culture. This is further reinforced by the positive social outcomes of a normal scan: confirmation of new life, becoming a family, and an overwhelming sense of joy (Ekelin, Crang-Svalenius & Dykes, 2004). One could say that ultrasound has found a USP worthy of guaranteeing its place in British culture for many years to come.

2.3.2 Culture and choice

One factor influencing a woman's decision to take up prenatal testing may be the existence of a "subjective norm" to accept the test (Van den Berg et al., 2008). This norm, according to Van den Berg et al. (2008) represents a social pressure to engage in certain types of behaviour and it stems from the attitudes of the people close to a woman during her pregnancy. The latter include her obstetrician, midwife and partner.

As a subjective norm can influence a woman's intention to undergo screening, Van den Berg et al. (2008) point out that the involvement of health professionals in creating it could hinder the application of non-directive counselling. Michie et al. (2004) argue, however, that health professionals play only a minor role in creating this norm, and that a woman's partner or friends have a much greater influence on her decision. It is interesting to note that in both the aforementioned studies the women were asked directly to assess how much they *believed* their behaviour had been influenced by what they *thought* others expected of them. This is a highly reflective process.

Often, when people are asked to rationalise their choices they filter out the implicit

cultural norms that guide their everyday decisions. As we suggested earlier, the routinisation of ultrasound in pregnancy has made prenatal scanning an implicit cultural norm. This filtering process means that people's explicit attitudes and preferences can often be very different from their implicit attitudes and behaviours in actual situations (Karpinski & Hilton, 2001). Implicit norms, one could argue, create a background against which subjective norms are established. Implicit cultural norms are, as we mentioned earlier, also necessary for establishing order and allowing society to function. For example, in the English language the particular pronunciation of a word facilitates a communal understanding which allows the effortless process of communication to proceed. When people mispronounce it - as children or speakers of a foreign language might - they are swiftly corrected, often in a covert manner by someone else placing a "subtle stress" on the correct pronunciation (Dreyfus, 1991, pp.152). This is to avoid deviation from the implicit norm which provides a familiar understanding within the communal group. Here, familiarity with implicit norms is key, as formulating a set of rules to guide the pronunciation of every single word in each communal group and for each particular dialect, would be almost impossible (Jenkins, 1998).

When we see the power of implicit cultural norms, we can question the power of a subjective norm to wholly influence a woman's decision with regards prenatal testing. The latter is a perspective founded on the wider and long standing implicit cultural attitudes of society in general. We can often have an "idealised" version of ourselves which does not correspond to everyday reality, so a preference may be expressed on

reflection which belies our actual choices in a real-world situation (Karpinski & Hilton, 2001). This suggests that individual perspectives, which represent subjectivity, are a modified reflection of the implicit cultural attitudes that have moulded us into who we are. According to Dawkins (2006), background cultural attitudes represented by "memes" (a cultural unit representing an idea, value or pattern of behaviour) will have been transmitted to us by our parents or teachers during our socialisation. Pierre Bourdieu (1972/2003) refers to the collection of cultural attitudes and norms as a "habitus" and says that, "Since the history of the individual is never anything other than a certain specification of the collective history of his group or class, *each individual system of dispositions* may be seen as a *structural variant* of all the other group or class habitus" (pp.86). The point is that implicit cultural norms not only provide a shared understanding of the world but are so much a part of our background understanding of it that we often fail to see the extent to which we are guided by them. The power of cultural norms must therefore be given credence in the analysis of what influences women's attitudes towards prenatal ultrasound screening.

Indeed, the cultural sensibility of a particular group of people, often defined by their nationality, can have a profound influence on the attitudes that women within that group have towards ultrasound screening during pregnancy. As Press & Browner (1997) point out, "Patients and providers in each country and region are likely to come from the same culture and therefore share common values, including values about prenatal testing" (pp.982). This may explain why certain groups, particularly in the west, find it so attractive. Britt et al. (2002) suggest that "powerful *contextual*

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forces" shape the meaning of the experience of ultrasound for many women. What seems particularly pertinent in this argument is the context of a woman's geographical location and the societal norms that reside there. It follows, as McCoyd (2007) points out, that women do not turn up for an ultrasound appointment with a "blank slate," but with "a set of expectations derived primarily from societal messages" (pp.38). The latter may reflect a sense of denial that an anomaly could occur and a general misconception about the nature of prenatal testing. A woman's decision to accept prenatal testing is based partly on what she feels is expected of her (Van den Berg et al., 2008), and this, we might suggest, is a combination of both the general shared attitude towards the technology and the "subjective norm" that reflects the expectations of those close to her.

This does not, however, rule out the fact that women *can* make decisions based on purely personal criteria. The latter would be one factor influencing the different screening uptake rates within, as well as between, countries. Admittedly, other factors will have a substantial influence on the latter. For example, in different geographic areas within some countries, services and technologies may be limited or available only to more affluent women (Press & Browner, 1997). Although this is not the case in the UK due to a nationwide screening programme (NICE, 2010), in Australia uptake for first trimester combined screening can vary from 58.5% (in the more affluent Western Australia) to less than 5% (in the less affluent Northern Territory) (O'Leary et al., 2006). There are also considerable differences in knowledge about prenatal screening and the conditions screened for between ethnic groups inhabiting

the same country (Fransen et al., 2009), and the fact that, even in the UK, certain ethnic groups may be less likely to receive the offer of testing (Rowe, Garcia & Davidson, 2004). However, what we shall focus on next are the personal criteria that women might use to make decisions about prenatal testing.

The general cultural attitude can often be quite different from the attitude women take when faced with immediate, existential dilemmas. For example, Bryant, Hewison & Green (2005) found that the majority of women who had a sibling with Down's syndrome were, on the whole, in favour of both the prenatal diagnosis of, and termination for Down's being widely available – possibly reflecting the overall cultural attitude. However, when they were asked if they would undergo screening themselves, many said they would not. When termination for Down's was suggested on a personal level, less than half of those in favour of its availability said they would actually consider using it themselves. The general situation reflects the fact that although Down's screening is perceived to be a good idea and that termination is a viable option, a woman's unique situation might dictate otherwise.

The last point raises the question of whether women in the UK - who implicitly accept prenatal ultrasound screening as a routine part of pregnancy - are actually accepting it as part of their general or unique situation. In other words, are they saying "yes" to having a scan because saying "yes" is the norm, or are they saying "yes" as a personal choice? A survey by Hundt et al. (2008) suggests that 73% of women in the UK would not consider declining routinely offered ultrasound. This lack of consideration is

certainly a sign of ultrasound's taken-for-granted status during pregnancy. It also jeopardises the assumption that informed consent is being obtained, because truly informed consent would be a reflection of a woman's unique situation and not merely the societal norm. The majority of women in Bryant, Hewison and Green's (2005) study suggested that Down's screening and TOPFA were good ideas because, we might infer, that view reflected a culturally acceptable notion. But would they use them personally? Not at all. When the personal context was taken into consideration it appears that an informed decision was made, and in this respect, the unique situation triumphed over the general one.

Could the same be said of *routine* prenatal ultrasound? If the general consensus - i.e. the implicit view held by society - reflects the idea that prenatal ultrasound is a "routine" part of pregnancy, then women may readily accept this form of screening. The unique context of their situation, however, has the potential to sway the decision in the opposite direction. Admittedly, the latter would require a degree of reflection and an adequate level of knowledge about the true capabilities of the scan, and service providers have now recognised this fact. Indeed, many are beginning to acknowledge that pre-scan information is a valuable commodity in obtaining informed consent (Kirwan, 2010).

There is opposition, however, from those who warn that increasingly detailed information about screening would create unnecessary anxiety in the majority of women who have normal scans (Lalor & Begley, 2006). A population of "worried

well," they say, may be one consequence of simply knowing too much (Qureshi et al., 2001). On the other hand, pre-scan information may reduce anxiety by arming women with the knowledge that abnormalities can occur, and so lessen the shock when they do. The debate surrounding pre-scan information, it seems, hinges on whether such information effectively reduces or increases maternal anxiety. The latter, of course, elicits its own negative consequences. It is to this anxiety which we will now turn our attention, prior to re-kindling the debate about informed consent.

2.4 Ultrasound screening and maternal anxiety

There is a consensus that ultrasound appears to be a safe way to "test" pregnancy, although there is no evidence to suggest that it actually improves its outcome (Van Dyk, Motto & Buchmann, 2008). Ultrasound has been useful for accurately assessing gestational age, the number of foetuses, and whether abnormalities are present (NICE, 2008) but, as we have suggested, women appear to be more attracted by the reassurance it offers about the wellbeing of their unborn child (Bricker et al., 2000). The fact is that prenatal ultrasound was designed to detect abnormalities and this, we can suggest, creates a tension between the reassurance women crave and the investigative task of the sonographer performing the scan. Ultimately, women will only be reassured if ultrasound fails to find a problem, but sonographers will experience a degree of success if it does. In addition, there is always the possibility that false positives may occur (Yeo & Vintzileos, 2008) which, combined with the fact that soft markers provide nothing more than a risk factor, means that the potential for *unnecessary* anxiety during pregnancy is very high (Ahman, Runstam & Sarkadi,

2010).

Ultrasound also has its limitations. A woman reassured by the normal appearance of her first scan, may be shocked to find an abnormality on the second one. This is because a scan undertaken at fourteen weeks only has the ability to visualise half the structural anomalies that could be present in the foetus at that time (Roberts & Bhide, 2007). Detection rates also vary by the type of foetal anomaly, the position of the baby and a woman's body mass index (BMI) (NICE, 2008). A recent audit indicates that failure rates for prenatal ultrasound can be as high as 20% when a woman's BMI exceeds 30 (Boyd et al., 2009). This means one in five abnormalities may go undetected. When a woman's BMI exceeds 35, the failure rate can be as high as one in four. Garcia et al. (2002) suggest that women are generally unaware of the limitations of ultrasound - in particular, the fact that an otherwise "normal" scan does not rule out the possibility that an abnormality might exist. As a result, the potential for anxiety and the negative consequences it can have for both mother and baby are of mounting concern.

For the baby, maternal anxiety can pose a tangible threat (Getz & Kirkengen, 2003). Teixeira, Fisk & Glover (1999) found that maternal anxiety was positively correlated with increased uterine artery resistance and suggest that this has the potential to restrict blood flow to the foetus. The latter may provide an explanation for the link between maternal anxiety and premature birth (Rondo et al., 2003). There is also evidence to suggest that high maternal anxiety contributes to behavioural problems later on in childhood (O'Connor et al., 2002).

A recent study by Glover et al. (2009) indicates that a woman's emotional state during pregnancy can affect her placental function - an inference grounded in the observation that high levels of cortisol (a hormone associated with stress) in maternal plasma, corresponds to high levels of cortisol in amniotic fluid. Cortisol, in turn, can affect the expression of over a thousand genes in foetal brain cells (Salaria et al., 2006). This suggests that maternal stress may impinge negatively on foetal neurodevelopment (Van den Bergh et al., 2005). The association between prenatal anxiety and increased risk of child cognitive and behavioural problems is, therefore, unsurprising (O'Connor et al., 2003).

In addition to the opposing perspectives on the purpose of the scan (the tension between reassurance and screening) and the inherent limitations of the technology, there may be a cultural contribution to screening related maternal anxiety. We can draw on the elucidation in the previous two sections that the culture provides a backdrop for a woman's perspective on prenatal scanning. Irish women, for example, may be more anxious due to the fact that their options for managing an abnormality detected during a prenatal scan (with TOPFA being illegal) are limited (Lalor, Begley & Galavan, 2008). Dutch women, on the other hand, may be less anxious as screening plays a much smaller role in pregnancy (Muller et al., 2006a). Of course, these are merely illustrations taken from generalisations about cultural "types," although they do highlight the effect that implicit cultural norms may have on anxiety.

There may be a combination of factors which can exacerbate maternal anxiety, yet what we have discussed so far paints only a broad picture: reassurance versus screening; technological limitations leading to false positives, and the stress of inconsequential findings. All these factors may create a general level of anxiety applicable to all women, but there is also the unique, personal context in which a woman accepts prenatal screening to consider. It is in this context that meaning is made and decisions are reached, which highlights the fact that attempting to alleviate the general level of anxiety via education about screening may not be as important as first thought. Does the *general* level of anxiety a woman experiences actually exhibit any significant long term detriment to herself, her baby or the pregnancy as a whole?

Glynn et al. (2008) found that the general level of prenatal anxiety a woman experienced did not necessarily correlate with a negative outcome, which in their particular study was premature birth. There was one factor, however, which did have a significant effect: the more anxious a woman *became* throughout the term of her pregnancy, the more likely it was that her baby would be born pre-term. This suggests that an *increase* in maternal anxiety is the key factor in producing a negative outcome, not the *general* level. This is significant for the way anxiety should be viewed and managed during pregnancy. It highlights the fact that the way a woman is handled by those charged with her care during pregnancy is important. The interaction a woman has with the whole team of health professionals involved in her pregnancy (midwife, obstetrician, nurse, and although only briefly, sonographer) should, therefore, be subject to scrutiny.

Of all the interactions that a woman has with the healthcare team involved in her pregnancy, that with the sonographer holds the greatest potential source of anxiety. Bad news in pregnancy is unexpected, shocking and emotionally traumatic, and in the context of a real-time scan its effect is intensified. Sonographers are in a position to minimise that effect. They are also in a position to *increase* it, which in turn, could lead to further associated problems.

2.4.1 The problem of increasing maternal anxiety

In Germany, which has one of the highest rates of prenatal ultrasound in the world (Erikson, 2007), the potential for increasing anxiety during pregnancy has reached alarming proportions. Petersen & Jahn (2008) investigated a group of three hundred and sixty German women - half of whom had received seven or more ultrasound scans during their pregnancy - and found that 67.2% had been informed of suspicious or abnormal findings. Many of these findings had not been substantiated later on. Germany, perhaps, represents one extreme with regard to the use of ultrasound for prenatal screening, with Holland at the opposite end of the scale (Muller et al., 2006b). In the UK, two routine scans are offered. However, the reassurance that ultrasound provides has led many women to seek repeated scans from different providers (Kowalcek, 2007). There is also an abundance of four dimensional (4D) "bonding" scans that are commercially available (www.meetyourbaby.com). One can speculate, from the evidence supplied by Petersen & Jahn (2008) that the more scans a pregnant woman has, the greater the opportunity for false positives to occur, and the greater the potential for increasing anxiety.

In addition to the risk posed to the foetus, raised maternal anxiety can cause psychological and social problems for the mother. Women receiving a false positive result from a Nuchal Translucency (NT) scan can suffer anxiety up to two months after the birth of a normal child and put their pregnancies "on hold" while they wait for confirmation of an abnormal ultrasound finding via amniocentesis (Georgsson Ohman et al., 2006). Baillie et al. (2000) suggest this stems from a woman's perceptual shift regarding the pregnancy's state: the "normal" pregnancy becomes a "high risk" pregnancy while the former is temporarily suspended. During this tentative period of pregnancy anxiety is likely to increase.

Carolan & Hodnett (2007) discovered that inconsequential findings such as soft markers could change a woman's plans to have more children. When scan results suggested a problem, the women in their study lost confidence in their ability to produce a "perfect" baby, and this became a source of stress. Happiness for these women lay, very much, in the image of a perfect future. One could argue that this was an image irrevocably destroyed by medical intervention - i.e. prenatal screening. Although ultrasound findings are often inconsequential, it can still be difficult to convey this to a woman when something physical has been "seen" on the scan. Such is the visual power of ultrasound. The feeling of "unattainable perfection" can then pervade the future in a way that sustains the belief in many parents that there is something wrong with their child, despite the child's apparent health (Mason & Baillie, 1997).

For definitive abnormalities, abortion (TOPFA) may be the only solution offered to the parents. This generally happens when an abnormality indicates a foetal incompatibility with life (83% of which ultrasound can successfully detect (RCOG, 2010)). Making decisions about TOPFA, and ultimately dealing with the consequences, can be a stressful and traumatic time for parents. Younger women, in particular, are more vulnerable to the psychological sequelae of abortion in light of their less critical stance on accepting "routine" screening in the first place (Bryant, Green & Hewison, 2001). Psychological morbidity for TOPFA is prevalent, particularly later on in pregnancy (Davies et al., 2005), and the rates of TOPFA are increasing in the UK (Wyldes & Tonks, 2007). Figures show that at least one in five women undergoing the procedure may exhibit pathological signs of post-traumatic stress (Korenromp et al., 2005).

There are several ways in which prenatal ultrasound might contribute to increasing maternal anxiety during pregnancy. A scan represents only a brief slice of time during pregnancy (30 minutes out of 40 weeks), yet what can transpire in that period can have a dramatic affect on not just the pregnancy, but on the rest of a woman's life and the life of her child. We suggested earlier that the interaction between a sonographer and patient is worthy of investigation - hence this research - but there are antecedents to that interaction which could affect maternal anxiety. Many, such as the first meeting with the midwife, will entail providing information about the scan and a discussion regarding the potential consequences of screening. The National Fetal Anomaly Screening Programme in the UK (NHSFASP) suggests that this process will promote

informed choice and potentially alleviate anxiety by educating women in advance about what a scan might reveal. When inconsequential or even statistically significant findings are revealed the suggestion is that prior knowledge will lessen the shock (Kirwan, 2010). This appears logical but is rather idealistic as Nicol (2007) suggests, and not a reflection of current practice. However, it is to the role of information in reducing anxiety which we will now turn our attention.

2.4.2 The role of information in reducing maternal anxiety

An abundance of literature has been made available to women, as well as pre and post-scan counselling for the purposes of promoting informed consent. Ultrasound, after all, is a screening test and in order to maintain its status as a test (according to the criteria set out by the World Health Organisation (Andermann et al., 2008)) the decision to accept it has to be an *informed* decision. Unfortunately, the latter only takes into account the amount of information required to do this and overlooks the pervasiveness of implicit cultural norms. We have seen that it is now a social "norm" for pregnant women in the UK to have a scan, find out the sex of the baby and to get a picture (Mitchell, 2004). Women do not necessarily view the scan as a test, and from a social perspective it is not. Implicit acceptance, we could argue, is a far cry from rationally balanced decision making. In addition, few other medical tests could be described as eagerly anticipated events, which raises the question of whether education can reduce the social connotations that abound the prenatal scan. We could ask whether an ever increasing amount of information really is the solution to obtaining informed consent.

Whynes (2002) discovered that the majority of women accept prenatal ultrasound uncritically, despite receiving very little information about it. Basama, Leonard & Leighton (2004) found that less than 5% of women in the UK had received information about prenatal testing from their midwives, that a quarter viewed prenatal ultrasound as a social event, and that 92% had never heard of soft markers. Lack of information and an overly social view of of prenatal ultrasound, according to Carolan & Hodnett (2007), has prevented women giving serious consideration to the possibility of abnormal findings. However, a balance must be sought between providing sufficient information about the medical aims of ultrasound screening and addressing women's social expectations.

In the UK, 97% of ultrasound departments currently offer pre-scan information to women (Maddocks et al., 2009). The majority provide an official booklet - produced by the UK National Screening Committee (NSC, 2010) - often in conjunction with their own in-house literature. Around 20% of departments provide their own in-house literature exclusively. When Fiona Maddocks and her colleagues (2009) assessed the quality of the in-house literature, they found that it tended to promote the social side of scanning. Information on foetal sexing and purchasing of photographs was invariably mentioned. Compared to the recommended publication (NSC, 2010), only two of the seventeen most important pieces of information identified by Maddocks et al. (2009) were covered by all the in-house booklets: *the purpose of the scan*, and *how results would be reported and received*. The majority of the in-house literature omitted information about the limitations of the scan and failed to mention that having a scan

is a matter of personal choice. Explicit, documented consent as a prerequisite was never addressed. From this we may surmise that current information in the UK is not covering the medical aspects of ultrasound sufficiently well (a similar situation to that found in Ireland (Lalor & Begley, 2006)). In this respect, current information is maintaining the image of a "social scan."

The last point leads us to question the value of current information in terms of informed consent, and suggests that more detail with respect to screening is required. However, pre-scan information is also aimed at reducing maternal anxiety. For the latter, the actual content may not be so important, as information about prenatal testing can be seen as "valuable" whether or not it is actively used (Sahin & Gungor, 2008). Lobel, Dias & Meyer (2005) suggest that possessing information alone can act as a coping resource and allow a woman to deal with stress in a positive way.

Stress and coping theory (Lazarus & Folkman, 1984) underpins Lobel, Dias and Meyer's (2005) assumption. When a person's perceived ability to cope with a potential stressor is sufficiently high, the stressor is seen as less threatening and they can deal with it in a constructive way. This type of "problem-focused" coping often reduces anxiety. A lack of perceived coping resources, on the other hand, leads to "emotion-focused" coping characterised by denial and a subsequent increase in anxiety. Interestingly, the women who took part in Lobel et al.'s (2005) study, considered personally given information to be more valuable than written information; something which the authors suggest is due to the inherent human aspect of the interaction.

Indeed, face-to-face consultations immediately prior to a prenatal scan have been shown to reduce women's anxiety compared to written information alone (Masroor, Ahmed & Ajmal, 2008). This poses an interesting question: does personal reassurance increase coping more effectively than a wealth of written knowledge?

According to Dahl et al. (2006) satisfaction with pre-scan information has little to do with the amount, or type, of knowledge gained, and a lot to do with women having their expectations for information met. Smith, Titmarsh & Overton (2004) suggest that possession of written information alone can promote satisfaction, without the information itself actually being read. This does not bode well for informed consent. If women are satisfied with information that they do not read, then they are unlikely to seek out any further information which could assist their decision to accept or decline screening. It would seem that the argument for providing more prolific and detailed information to promote informed consent has overlooked the fundamental difference between being satisfied with information and actively using it. Another blow is dealt by Smith, Titmarsh and Overton's (2004) observation that the mere possession of information alone - apart from its ability to promote satisfaction and effectively reduce stress - increases a woman's sense of having made an informed choice about prenatal testing. Many of the women in Smith, Titmarsh and Overton's (2004) study did not even read the pre-scan information they had been given.

Logic, however, dictates that more detailed information equates to better knowledge, which in turn equates to better informed decisions. There is a limit, however, to the

amount of information that can usefully be given. One drawback of excessive information may be that too much detail regarding foetal anomalies could needlessly frighten the majority of women whose scans are normal (Lalor & Begley, 2006). Kowalcek et al. (2002) found that parents exhibited high levels of depressive reactions prior to an ultrasound scan when they were aware of its *full* diagnostic capabilities. Although this may bolster the case for erring on the side of caution when presenting overly detailed information before a scan, such information has yet to show any associated increase in post-test anxiety (Green et al., 2004). This is significant because pre-test anxiety dissipates on the receipt of a normal result (Zlotogorski et al., 1995; Baillie, Hewison & Mason, 1999). Post-test anxiety, on the other hand, has a much greater potential for longevity and could possibly lead to longer term psychological morbidity (Georgsson Ohman et al., 2006).

In conclusion it would make sense to raise anxiety and knowledge prior to the scan for the majority of women in order to lessen the shock of the few who have abnormal results. Assuming, of course, that such knowledge lessens the negative impact of bad news.

2.4.3 Information and informed choice

Aside from the effect that information has on anxiety, there is still the question of its efficacy in empowering informed choice. First let us discuss informed choice and its relation to informed consent. The UK National Screening Committee (NSC, 2005) suggest that "informing for choice is part of a continuum in antenatal and newborn

screening in which women and families are offered a range of tests, possibly with further choices after receiving test results. They then make their choice about how to proceed, and finally they give or withhold their consent to any procedures" (pp.13). A range of choices are offered, and information is provided in order that women understand the tests and their implications for both themselves and their baby. One must, therefore, assume that the possibility of declining each test is also offered as a choice, although this would be the only choice which did not invoke the necessity of informed consent. Consent, itself, is more than a decision. It is an ongoing agreement by a person to undergo a procedure after all the risks, benefits and alternatives have been adequately explained (RCN, 2004). A woman, therefore, must be offered a range of choices which includes *not* having a scan.

Given our previous discussion on the normative framing of choices in relation to the acceptance of prenatal testing, and the suggestion that prenatal ultrasound represents a norm that limits women's choices to "being" or "not being" a good mother, then providing the option of declining prenatal testing may prove difficult. It may also prove contradictory in the medical setting of a woman's first appointment with the midwife, considering, as we mentioned earlier, that it was the medical profession's introduction of ultrasound into the social milieu of pregnancy that created the norm in the first place. Providing sufficient information to allow women to make informed choices must, therefore, be complemented by an awareness on the part of the health professional of a woman's "past experiences, beliefs, cultural norms and any other factors that have a bearing on [her] attitudes to screening" (NSC, 2005, pp.17).

However, as such an awareness is hard to quantify, we shall return to something more tangible: the role of information in informed decision making.

When Nagle et al. (2008) gave over three hundred Australian women a comprehensive, twenty-four page decision aid about prenatal testing, they found that more of the women made informed choices compared to those provided with a standard pamphlet (informed choice being measured using the Multidimensional Measure of Informed Choice (MMIC)). This suggests that more information is beneficial in making the decision to accept or decline a scan. However, what Nagle and colleagues also found was that, despite being better "informed," many women were making decisions about testing which conflicted with their personal values: more of the women who held negative attitudes towards testing tended to accept it after reading the decision aid, compared to those who read the standard pamphlet.

One must, therefore, ask whether additional information actually empowers women to make decisions based on their own unique situation, or does so in terms of the general situation in which prenatal testing is routinely offered. In other words, is such information empowering women to make personal, existential choices, or to conform to the norm of what is considered the responsible thing to do? The relevance to prenatal ultrasound becomes clear when we consider the suggestion that women often dismiss negative information after they have made the decision to accept prenatal testing, so as to avoid thinking about the consequences of an abnormal result (Ekelin, Crang-Svalenius & Dykes, 2004). This, along with the findings of Nagle and

colleagues' study, infers the idea that additional information may simply inform the initial decision to accept testing, yet may not be retained long enough to ameliorate the shock of discovering an abnormal result (i.e. when the true purpose of a prenatal scan is realised).

Worryingly, Nicol (2007) suggests that even the negative aspects of information may be avoided by women prior to making the decision of whether or not to accept routinely offered scans. Women, she says, tend to interpret pre-scan information in terms of their own coping strategies and that this often causes them to gloss over the negative aspects, leaving them with "a superficial knowledge of the potential of scans" (pp.529). The latter, Nicol argues, promotes compliance rather than choice.

Despite being informed verbally and in writing, many women are still unaware of the medical purpose of a prenatal scan (Georgsson Ohman et al., 2006). They may, after all, selectively choose which information they read (Nicol, 2007). In this respect, verbal information given during a pre-scan counselling session may provide a more effective way to educate women about the consequences of screening, as well as reducing their anxiety (Masroor, Ahmed & Ajmal, 2008). Unfortunately, the generally non-invasive nature of prenatal ultrasound appears to have prevented pre-scan counselling from becoming a routine part of the examination (Abramsky & Chapple, 2003). Recently, however, there has been a drive to change this situation.

The NHS Fetal Anomaly Screening Programme (NHSFASP) have suggested that

counselling should be offered at the beginning of each appointment (Kirwan, 2010). It should, they say, include "supportive listening, advice giving and information giving" (pp.50). It should also be facilitative, non-directive and relationship-focused, and something that should be guided by the pregnant woman. Information giving is simply conveying knowledge, but being supportive, we could argue, requires something else entirely – it requires a level of human connection.

Although Abramsky & Chapple (2003) argue that non-directive counselling is difficult to achieve, Van den Berg et al. (2007) provide evidence to the contrary. In their study - which looked at the attitudes of almost one thousand pregnant women being guided by ninety-seven prenatal counsellors - advice from the counsellors regarding Nuchal Translucency (NT) testing was viewed as a form of social support rather than coercion. The women felt that their decisions were shared rather than directed. Sharing, of course, requires a human interaction which is something that written information alone cannot provide.

Perhaps it is the level of personal contact that women appreciate. It would certainly preclude the possibility of them selectively pruning out the negative information prior to accepting a scan. The problem, however, with any form of counselling is the danger of it being directive. Health professionals, like any other people, will have opinions about testing, which may partly be driven by the organisation that they work for. Because of this, Marteau, Dormandy & Michie (2001) warn health professionals to be cautious of not presenting tests in a very positive or negative light as it can influence
women's decisions. This is good advice but, once again, rather idealistic. According to Dahl et al. (2006), presenting screening tests in a positive light is somewhat unavoidable. The provision of detailed and balanced information, they argue, has been hindered by cost-efficiency and the seeking of high uptake rates by providers.

Perhaps providers are attempting to reduce the social nature of the scan by reiterating its definition as a diagnostic investigation (Kirwan, 2010). Unfortunately, this goes against the deep seated familiarity that women have with prenatal ultrasound in western culture (Seavilleklein, 2009). It is as though the medical profession and health care providers are trying to fight custom with rationality. This is going to be a difficult battle indeed. There is talk of balancing the social and diagnostic aspects of ultrasound, yet they often oppose each other, pulling towards different goals. If the battle is won ultrasound may no longer be widely accepted as a routine and normalised part of pregnancy. Instead, it will be a carefully considered choice. This may, in turn, affect the viability of a nation wide screening programme. After all, how could such a programme exist if no one "chose" to use it? Ultrasound is a relatively new phenomenon whereas pregnancy, with all its social rituals, is a fundamental part of human life. One fewer social ritual, one might suspect, would be of little consequence in the grand scheme of things.

2.4.4 Conclusions on anxiety, information and informed choice

It appears that the information already available to women about prenatal testing does little to reduce the social nature of the scan. Many in-house leaflets in the UK convey

more information about sexing and pictures, and rather less about detecting abnormalities and the potential for further invasive testing (Maddocks et al., 2009). Some argue that providing more detailed information would simply create more anxiety for women. Women after all, want a scan, they expect it, and they crave the reassurance it offers. This makes it unlikely for them to decline it as Hundt et al. (2008) suggest.

If women accept ultrasound as a normalised part of pregnancy, then detailed information that highlights its negative aspects may only serve to create unnecessary anxiety. Yet, in order for ultrasound to be considered as screening, women need to have this information so they can make an informed decision about whether or not to accept it (Ahman, Runstam & Sarkadi, 2010). The argument against providing more information states that it will only make the ultrasound experience a negative one. It may even deter women from having prenatal scans, which would certainly have a detrimental financial effect on service providers (Dahl et al., 2006). Perhaps the latter may be one reason why the current information offered by the majority of providers implicitly supports the accepted social status of the prenatal scan.

Some women will be more anxious than others about their pregnancy. A family history of congenital abnormality, or particular symptoms during pregnancy may cause some to worry more than others, and these women will approach the ultrasound scan with caution. If they are prepared for adverse findings a "normal" scan will have a positive effect. An abnormal scan may confirm prior suspicions, but may not necessarily increase anxiety as acquired knowledge can often alleviate the fear associated with an unknown threat. Only when a woman is unprepared for bad news will anxiety increase dramatically when results are abnormal. This supports the argument for educating women about the purpose of the scan, although one must consider the vast majority of women who have normal scans (around 95% in the UK (Kirwan, 2010)), and for whom this "education" will cause unnecessary stress.

Another point to question is whether prior information does, in fact, reduce anxiety in the small percentage of unsuspecting women who have abnormal scans. This would be exceptionally difficult to measure as one is dealing with the unknown potential for anxiety as a frame of reference. Regardless of whether information reduces the potential for anxiety or not, it is an *increase* in anxiety which appears to detrimentally affect the long term psychological outcome (Glynn et al., 2008). Thus, the importance of the relationship between the sonographer and the woman during a scan is paramount. The question of how much this relationship can affect maternal anxiety will be of greatest consequence when unexpected bad news is communicated.

2.5 Breaking bad news during a prenatal scan

Statham, Solomou & Green (2001) suggest that sonographers are the most likely health professionals to break bad news to women about foetal abnormalities detected during routine obstetric ultrasound examinations. A recent survey supports this finding, showing that in 85% of UK ultrasound departments, women are given information immediately by the sonographer if a definite abnormality is seen (Maddocks et al., 2009). Second opinions, however, may be sought by the sonographers before this happens. Maddocks and colleagues found that more than a third of sonographers seek a second opinion when a suspicious abnormality is found - which is understandable as confirmation is desirable prior to disclosure. However, a third of sonographers still seek a second opinion when a *definite* abnormality is detected, suggesting that, perhaps, a second opinion might contribute more to the breaking bad news situation than just a confirmation of findings.

2.5.1 Practicalities and relationships

Saviani-Zeoti & Petean (2007) found that breaking bad news of a foetal abnormality during a prenatal scan often left health professionals feeling hurt and frustrated. Many who took part in the study - a mixture of obstetricians and sonographers - reported feeling the emotions of the women they were giving the news to, and although they tried to maintain a professional distance, found it hard not to get involved. The majority also felt unprepared to give bad news. Despite training and experience, the consensus was that there was no standard behaviour or specific moment that was most appropriate for making such an announcement.

Sonographers who took part in a study by Simpson & Bor (2001) also felt frustrated and unprepared when faced with breaking bad news during a prenatal scan. One reason was that professional satisfaction, which was linked to finding abnormalities, meant causing a certain amount of emotional suffering in their patients. Upsetting a patient during a scan invariably indicates it has been successful, whereas doing so during a standard medical consultation is generally associated with failure and guilt (Schubert & Chambers, 2005). This highlights one major difference between the way sonographers and doctors break bad news.

For sonographers there is also a lack of time and an unpredictability to the patient's reaction (Simpson & Bor, 2001). In the latter study, the sonographers suggested that having some form of protocol helped. Protocols for breaking bad news have indeed been shown to increase perceived self-competence (at least among medical students) (Garg & Buckman, 1997), as having a plan of action can often reduce the uncertainty of a stressful situation. Similarly, when clear steps are laid out as to what to do following a scan – such as whom to contact and details of support agencies for parents - sonographers find it easier to deliver bad news (Simpson & Bor, 2001). This does not suggest, however, that a protocol can provide a set of instructions for giving bad news. Rather, it may keep the news-giver and, therefore, the patient moving forward throughout the event. There is always another step to take, so to speak. Sonographers also value support from colleagues (Simpson & Bor, 2001), which may explain why so many seek a second opinion, even for a definitive scan result (Maddocks et al., 2009). Therefore, obtaining a second opinion - in addition to confirming suspicious findings - could provide both an opportunity for the practitioner to plan the next steps in patient management and an opportunity to derive support from colleagues. In ultrasound, at least, the emotions of the news-giver appear to be an important factor.

Chambliss (1996) suggests that health professionals normally care for their clients in

the form of a "detached concern," keeping their personal feelings in check but remaining open to the feelings of the patient. However, when normal routine breaks down - such as the discovery of an unexpected anomaly during a prenatal scan maintaining a level of professional detachment may be difficult. Sonographers, as we have seen, can find it hard to stay emotionally distant when news of a foetal abnormality has to be disclosed (Saviani-Zeoti & Petean, 2007). Other professions working in foetal medicine units tell a similar story. Some occasionally find themselves crying with their patients (Williams, 2006). "Detached concern," therefore, may not be a natural state to assume when delivering unexpected bad news to pregnant women. It may not even be suitable in the general context of a prenatal scan.

Fallowfield (1993) states that many doctors cultivate a posture of "cool detachment" on the assumption that it is part of being professional and what people expect of them. Some of the advice aimed at the medical profession perpetuates this idea. Hammond et al. (1999) advise that radiologists should draw a parallel between giving bad news during a prenatal scan and giving "first aid" - the idea being to stabilise the patient in preparation for more comprehensive care given by others later on. Here, the natural medical emphasis on diagnosis and control (Buckman, 1992), combined with a task oriented approach, leaves very little room for personal involvement. Yet this appears to be counter-intuitive when we take into account the studies that have shown the overwhelming sense of involvement that many professionals feel in identical situations (Williams, 2006; Saviani-Zeoti & Petean, 2007). If involvement is the default response, then maintaining an emotional distance would require, we might

suspect, a degree of psychological and emotional effort (something Hochschild (1983) refers to as "emotional labour"). However, we must also consider the fact that radiologists are rarely present during a prenatal scan and lack the immediacy of human contact at the moment an abnormality is discovered. This, in turn, precludes the level of involvement in the radiologist-patient relationship that sonographers have, and preserves the emotional divide. Hammond et al.'s (1999) advice came at a time when sonographers were starting to take over the role of breaking bad news from radiologists and the immediacy of the situation they faced was only just being realised. This bolsters the argument that a posture of detached concern (Chambliss, 1996) may not be conducive to prenatal scanning.

The sonographers' position with respect to breaking bad news brings the social nature of the world that they share with their patients into sharp relief. This is a world of human relationships which inevitably involves, as the literature suggests, a degree of emotionality. The sociologist Erving Goffman has written much about the emotional/relational world. In fact, Scheff (2003), suggests that Goffman discovered it from a social science perspective: "We all swim in this world all day, every day" Scheff says, "but Goffman was the first to notice and describe it" (pp.11). Goffman's work may, therefore, shed some light on the juxtaposition between the naturally empathic, emotional urge experienced when breaking bad news, and the apparent need to maintain a "detached concern" among some health professionals.

Goffman's (1956) work on social organisation focuses on the individual's need to

avoid embarrassment when dealing with others on a social level. "During the interaction," he says, "the individual is expected to possess certain attributes, capacities, and information which, taken together, fit together into a self that is at once coherently unified and appropriate for the situation" (1956, pp.268). Here we might infer that "detached concern" (Chambliss, 1996) may be one way that health care professionals maintain an "appropriate" professional persona when dealing with emotionally salient situations. Goffman continues: "Through the expressive implications of his stream of conduct, through mere participation itself, the individual effectively projects this acceptable self into the interaction, although he may not be aware of it, and others may not be aware of having so interpreted his conduct." (1956, pp.268). This suggests that detached concern may be an automatic response, perhaps one that is learned and conditioned through the process of emotional labour (Hochschild, 1983). The latter refers to the cognitive suppression of natural emotions in favour of those deemed more socially acceptable. It also suggests that a health professional's unwitting projection of an "appropriate" detached persona may be automatically interpreted as such by their patients.

Goffman's thesis rest on the assumption that social interactions are built on saving face and avoiding embarrassment, and that this elicits an automatic need to cooperate: "Since each participant in an undertaking is concerned, albeit for differing reasons, with saving his own face and the face of the others," Goffman (2003) suggests, "then tacit cooperation will naturally arise so that the participants together can attain their shared but differently motivated objectives" (pp.9). Perhaps it is the embarrassment of

showing their true emotions (e.g. empathic sadness and despair) that health professionals are trying to avoid by acting with detached concern. Not only, as Goffman suggests, for the sake of embarrassing themselves but to avoid embarrassing their patients and anyone else who is involved in the situation.

According to Goffman (1956), both the embarrassed person and the person who feels embarrassed for them will feel guilty about causing the embarrassment in the first place. The embarrassment then becomes contagious, spreading in wider circles to other people. Goffman reasons that this is because the others "have no settled and legitimate object to which to play out their own unity," and thus find themselves "unfixed and discomfited" (1956, pp.268). Perhaps what Goffman is trying to say is that although seemingly united in guilt, the original pair, and thus the others, are separated by the breakdown of the situation in which the embarrassment evolved, and hence no longer have anything "objective" to share. In other words, it is the sentiment of guilt which, despite being shared, lacks objectivity. This, however, is a rather convoluted way of suggesting that people simply tune into other people's emotions automatically. The latter phenomenon underpins the theory of emotional contagion (Hatfield, Cacioppo & Rapson, 1993), which will be discussed more fully in Chapter 3.

Goffman, it appears, is more concerned with the mechanics of impression management, than emotional contagion. He suggests that an individual "expresses" himself in a social situation which "impresses" upon the other person something of his nature (Goffman, 1959). The expression is signified by what is "given" (verbal information) as well as what is "given off" (non-verbal action) by the individual. The idea is that both are used to create a desired impression and influence the way that others define the situation. What is "given off" can be effected consciously (deliberately) or unconsciously (e.g. as a bi-product of one's social status or role). Goffman (1959) focuses on the cognitive elements of impression management with respect to both the person making the expression and those forming the impression. He suggests that the situation is consensually defined by all parties through some form of "attunement" which allows contradictory interpretations to be avoided. However, such an attunement involves suppressing what Goffman calls one's "immediate heartfelt feelings" and "conveying a view that [the individual] feels the others will be able to find at least temporarily acceptable" (1959, pp.20). He assumes that, "when an individual appears before others he will have many motives for trying to control the impression they receive of the situation" (1959, pp.26). Here Goffman infers that a detached analytic perspective is required at the beginning of each social encounter to enable a conscious control over it. This is similar to Heidegger's (1927/1962) deficient mode of solicitude (being with others) which is manifest in "aloofness, hiding oneself away, or putting on a disguise" (pp.161). It is also reminiscent of emotional labour. Goffman's account, despite offering a suitable explanation for the need of some health professionals to maintain a posture of "detached concern" when caring for their patients, overlooks the fundamental attunement people have with the shared situation and their emotional resonance with each other (Hatfield, Cacioppo & Rapson, 1993).

2.5.2 A critical moment

The detection of an abnormality during a prenatal scan can, as we have seen, be described as a critical moment which many practitioners feel unprepared for. Detraux et al. (1998) suggest that the disruption it causes initiates a period of "emotional traumatism" for both the person scanning and the woman being scanned; and that this period makes it difficult for practitioners to communicate bad news. It may also make it difficult for women to accept what they have been told. This period, we might suggest, could be viewed as a breakdown in the "flow" of regular activity which occurs during a normal, routine scan.

Flow is a concept which Csikszentmihalyi (1991) has written much about. It constitutes an absorption in an activity or task which requires little conscious deliberation. It is a reflection of expertise (Dreyfus & Dreyfus, 1996) and of a familiarity with situations and events; a sort of taken-for-granted know-how which allows background tasks to proceed unhindered. An expert sonographer scanning a patient will be "in flow" on a technical level, which allows them to concentrate on, and facilitate an interaction with, the patient. The patient will have their own sense of flow, being absorbed in the social expectations of what the scan will hold and contemplating the images on the monitor. In this situation everything moves forward effortlessly and as expected until the moment the discovery of an abnormality occurs. At this point, flow ceases and the situation breaks down. It is during this breakdown that the interaction between the practitioner and the patient appears to be critical to the success of the news-giving process (Maijala et al., 2003).

Walker, Miller & Dalton (2008) suggest that women are more satisfied with the way bad news has been delivered if they feel they have had a good relationship with the sonographer. It is true that women often want the person scanning them to be involved on a personal level from the beginning - because they want to be treated as an individual and feel unique (Ekelin, Crang-Svalenius & Dykes, 2004). Leithner et al. (2006) found that satisfaction following a diagnosis of foetal abnormality was also associated with a friendly atmosphere and being supported. The women in Maijala et al.'s (2003) study said they simply wanted to be accepted as a human being and feel some sort of connection with the person giving the news. Something as simple as providing tea and tissues in a private room often makes a huge difference to the way women experience receiving bad news (Paton & Wood, 1999). Statham, Solomou & Green (2001) say that "... their absence [tea and tissues] almost defines, for some mothers, unsupportive care" (pp.50).

The critical moment, described by Detraux et al. (1998) is important because it is the point at which the social facade of a prenatal ultrasound scan falls away. From that moment on, the screening element becomes all the more apparent, and it is during this period that the forewarning which pre-scan information affords begins to make sense. However, the critical moment conjures up the picture of a specific point in time at which the situation changes. We might suggest, rather, that it be viewed in terms of a crescendo, resulting from a subtle accumulation of antecedent events. These events, at least on behalf of the woman being scanned, may not necessarily be overt, or even consciously perceived.

Van der Zalm & Byrne (2006) suggest that women are sensitive to their surroundings when being scanned and Mitchell (2004) discovered that patients frequently reported picking up subtle clues from the sonographer when something was wrong. When asked to verbalise what they meant, the women in Mitchell's (2004) study spoke of prolonged silences, a certain look, or time spent focusing on one area of the screen. In retrospect, the latter were all cited as being meaningful indicators of foetal wellbeing. At the time, however, these clues were possibly more covert, existing on the border between conscious and subliminal awareness. Although the women's attention may have been directed toward the scan itself, they were sensitive to a background of behaviour which created, so to speak, an "atmosphere" of trepidation. Women in a study by Baillie et al. (2000) described how the atmosphere actually changed from "social" to "clinical and detached" when they sensed that an abnormality had been detected during a routine scan.

The previous observations indicate that sonographers should be sensitive to the way they relate to their patients. Perhaps it would even be appropriate to say that they should be sensitive to the "atmosphere" that they help to create during a scan. Statham, Solomou & Green (2001) suggest that sonographers should recognise a woman's specific situation, and treat her as an individual with individual needs. In Van der Zalm and Byrne's (2006) study, many women tried to forge a relationship with the sonographer early on, and if this was not reciprocated it polarised the experience entirely. If they felt included, the women said their experience had been good. If they felt excluded they said it had been bad, and this left them feeling depersonalised and disturbed.

Breaking bad news during a prenatal scan occurs on a background of emotion which creates an atmosphere to which women are sensitive. It involves more than giving unwanted information in a detached way. The background itself may provide the key to promoting empathy and minimising anxiety. The question is: to what extent has this been acknowledged by current advice?

2.5.3 Current advice on breaking bad news

The small amount of literature focusing on prenatal ultrasound provides some insights, but relatively little concrete advice for sonographers. It suggests that maintaining a sensitivity to the patient's emotional state and not necessarily cultivating an air of detached concern may help. We have seen that the unexpected nature of bad news during a scan and the immediacy with which it has to be delivered creates a degree of emotional traumatism for both sonographer and patient. This occurs after what has been described as a "critical moment" (Detraux et al., 1998), which is manifest the moment bad news has to be communicated and represents a breakdown in the flow of normal activity.

Certain precursors to the critical moment are evident: the patient's sensitivity to the mood or "atmosphere" of the situation as it changes, and the sonographer's own feelings of shock and urgency in formulating a plan for how the information should be given (Simpson & Bor, 2001; Saviani-Zeoti & Petean, 2007). The critical moment is

therefore a key phenomenon in breaking bad news during a real-time situation. It is also something about which we understand very little. The scope for developing advice beyond having some sort of plan or protocol is, therefore, minimal. One might also argue that a predetermined plan will only facilitate an ability to cope with a generalised situation and ultimately overlook the needs of the individuals involved, i.e. the sonographer and the patient.

As we suggested earlier, the sonographer-patient relationship is a fairly new phenomenon in the context of breaking bad news. Doctors, however, have a had a wealth of experience in giving unwanted information (Buckman, 1992) and the nursing profession has often supported them in this task (McLauchlan, 1990). Much has been written by both professions of the subject, although their perspectives have differed, as have their roles. The question is: to what extent is either perspective relevant to sonographers and the "middle ground" that they occupy?

2.5.3.1 The medical perspective

Sweeny & Shepperd (2007) state that "...the medical literature reveals a rich yet disorganized picture of how to give bad news well" (pp.236), which suggests that guidelines for breaking bad news are difficult to define. It also questions whether the latter is even possible. Levetown (2004) points out that there is no unanimous agreement from research involving doctors or parents on the right way to break bad news. There does, however, appear to be three assumptions which underpin current advice (Eggly et al., 2006). The first is that health professionals can plan a bad news

interaction, which rules out the unexpected; the second is that bad news interactions consist of a professional-patient dyad, which rules out both culture and context; and the third is that bad news interactions focus on one central piece of information.

All three assumptions highlight the difference between the medical profession's point of view and the reality faced by sonographers. It may indeed be possible to plan a bad news transaction, but this may not be practical during a real-time investigation. Apart from overlooking the "social" aspect of prenatal ultrasound in the west, the notion of a dyad with one central piece of information confirms Salander's (2002) suspicion that breaking bad news guidelines reduce the relationship between the health care professional and patient to one where information is transmitted between a *sender* and a *receiver*. One could, indeed, view the news of a foetal abnormality as encapsulating one central piece of information can open the door to a whole world of questions regarding further testing, treatment, termination, disability and other related topics; the answers to which may not be available at the time.

Both planning, in the form of advance preparation, and the transmission of unwanted information are two cornerstones of the SPIKES protocol. As the majority of guidelines are based on SPIKES (Baile et al., 2000), one might expect them to have an empirical foundation. This, however, is not the case, provoking the argument that a lack of empirical testing has placed their efficacy in doubt (Wittenberg-Lyles et al., 2008). In addition, compliance with SPIKES appears to be rather inconsistent in

practice (Vail et al., 2010). Despite the apparent setbacks, SPIKES has become a dominant force in breaking bad news literature and is, therefore, worthy of further discussion.

SPIKES was developed from Robert Buckman's (1992) original six-step protocol for giving bad news. Buckman's background is in oncology. SPIKES, in addition, appears to have incorporated one of the themes from Ptacek and Eberhardt's (1996) extensive review of breaking bad news literature: that a bad news interview should be analysed in terms of the transactional model of stress and coping developed by Lazarus & Folkman (1984). The premise behind SPIKES is that having a protocol increases the confidence of the person communicating bad news and thereby reduces their anxiety. If they are less anxious breaking the news, then the person receiving it will also be less anxious, or so the theory goes. SPIKES is, to all intent and purpose, a coping resource for news-givers.

Ptacek & Eberhardt (1996) suggest that stress can be transmitted from news-giver to news-receiver via some underlying mental feedback loop, and that the levels of stress vary as the transaction unfolds (Ptacek, Leonard & McKee, 2004). They suggest that the higher the baseline level of stress in the sender, the greater the rise in receiver stress will be during the period of disclosure (or "critical moment") (Figure 4). SPIKES aims to reduce the news-giver's (i.e. the *sender's*) initial stress and, therefore, the amount of stress transmitted to the patient (i.e. the *receiver*) during this period. Taking into account the feedback loop, then the overall level of stress experienced by both parties throughout the transaction should effectively be kept to a minimum.



Figure 4. Doctor (sender) and patient (receiver) stress levels during a bad news transaction (Ptacek & Eberhardt, 1996, pp.500)

Stress and coping theory lends itself rather well to the information-giving aspect of breaking bad news. From within the stress and coping framework, information regarding bad news can be appraised as a potential threat to both the person receiving it, as well as the person giving it: in the receiver it can produce cognitive and emotional deficits and in the sender it creates a fear of negative evaluation (Tesser & Rosen, 1972). Initially, in each party, a primary cognitive appraisal occurs during which the information is viewed as obstructing the realisation of certain desires, goals or beliefs (Figure 5).



Figure 5. Summary of the cognitive steps involved in appraising stress according to the transactional model of stress and coping

In a doctor-patient interaction the goal of the doctor may be to "cure" the patient, and the goal of the patient may undoubtedly be to get "cured." The personal goals of each, combined with the environment in which they must be met, form the personenvironment relationship. The obstruction caused by the impending transmission of unwanted information creates a degree of stress. The stressor (i.e. the bad news) may be classified as a "threat," if the coping resources of the individual are low, through the process of secondary appraisal. A threat appraisal is generally associated with emotion-focused coping (e.g. denial in the patient, or avoidance in the doctor) which can negatively alter the person-environment relationship. However, if coping resources are high, the stressor becomes a "challenge" and can elicit problem-focused coping. This usually involves a practical engagement with the stressor (as opposed to avoidance), which, in turn, has a positive effect on the person-environment relationship.

According to the stress and coping model, the stress of giving unwanted information is ameliorated in the news-giver by the coping potential that SPIKES affords. SPIKES offers a stepwise plan for dealing with this potentially threatening bad news situation and hopefully turns it into a challenge (Figure 3, pp.13). SPIKES, in other words, promotes confidence. This is supported by a study in which SPIKES was used as a training tool and appeared to increase participants' confidence for up to four months after the session (Rosenzweig et al., 2008). For the patient, however, it is the provision of empathy from the news-giver (step 5) which is thought to increase their internal coping resources. Although this may not turn the bad news into a challenge, it may reduce its threatening nature. This is essentially the "medical model" of breaking bad news: information is transmitted and then empathy is applied to soften the blow.

The medical model, however, relies on an inherent emotional distance between newsgiver and news-receiver: the relationship between the two relies solely on the passage of environmental or "external" inputs and outputs. (Notice how the background emotional content or "atmosphere" that we described earlier in the prenatal ultrasound scenario is absent in the medical scenario.) Information output from the news-giver enters the environment and is received as input by the patient. Likewise, empathy is a behavioural output from the sender, encoded environmentally by the receiver. This appears to represent a computer-like model of human interaction in which "covert" mental processes of appraisal give rise to a rational, cognitive deliberation and result in suitable helping behaviour. Figure 6 depicts how the ultrasound scenario might be viewed from the perspective of the medical model of breaking bad news.



Figure 6. *The medical model of breaking bad news applied to the ultrasound scenario.* The blue lines represent an environmental pathway for the transmission of stress/helping behaviour as an alternative to the mental feedback loop proposed by Ptacek and Eberhardt (1996).

Salander (2002) sums the process up nicely by saying that "if properly cared for, the external relationship may subsequently constitute a pre-conscious helping structure in the patient's internal world capable of lessening their despair" (pp.730). From within this model, SPIKES creates a pre-conscious helping structure in the news-giver's internal world furnishing them with confidence. This can then effect external behaviour (caring) which subsequently changes the receiver's internal world and

promotes coping. Both news-giver and news-receiver are simply part of the others "environment." There is no background connection.

Eberhardt McKee & Ptacek (2001) attempted to take an empirical stance to understanding the stress related to breaking bad news. When they gave a breaking bad news questionnaire to 90 college students, they found that anxiety, being nervous, struggling to find the right words, and being unable to answer questions were all cited as making the task more difficult. This was explained by the MUM effect (Tesser & Rosen, 1972), where self-concern, guilt and the fear of being negatively evaluated play a primary role. Uysal & Oner-Ozkan (2007) further suggest that the MUM effect (keeping "mum" about undesirable messages) stems from a fear of representing oneself negatively and adopting a negative mood state. Fear appears to be a common theme in breaking bad news literature: fear of being blamed (Ptacek, Ptacek & Ellison, 2001); of shooting the messenger (Alexander, 2000); of losing control (Friedrichsen & Milberg, 2006); of one's own emotions (Strauss et al., 1995); of illness (Mueller, 2002); of handling uncertainty (Schildmann et al., 2005); and confronting the certainty of one's own death (Wakefield, Cooke & Boggis, 2003).

SPIKES, as we have said, is a stepwise plan based on preparation. Eggly et al. (2006) however, challenge both the assumption that a bad news transaction can be planned, and that the person giving the news can, or should, prepare for a bad news interaction before it occurs. The latter appears to be supported by Ptacek, Ptacek & Ellison (2001) who discovered that the more doctors planned for a bad news interview, the more

anxious they became. Not only that, but the more anxious they became, the less effective they rated themselves in terms of lowering patient distress. A rigid script prepared in advance may, indeed, make breaking bad news easier but it can also make the news-giver less flexible in attending to the needs of the patient and does little to assuage their anxiety (Eberhardt McKee & Ptacek, 2001). In this respect, advance preparation falters. It essentially widens the emotional divide between news-giver and patient, and, if a rigid script is followed, does so to a point of complete emotional disconnection. But, as we have already seen, a level of emotional concern is rather intuitive in the ultrasound scenario (Saviani-Zeoti & Petean, 2007).

Following an ethnographic study of cancer patients receiving bad news, Wittenberg-Lyles et al. (2008) concluded that adaptive rather than prescriptive behaviours may better serve both parties. This supports Dosanjh, Barnes & Bhandari's (2001) idea that delivering bad news is not necessarily a technical skill that can be learned by following rules. Rather, the authors say, it should "...include an emotional connection or response" (pp.204). This bodes well for sonographers, although still leaves the question of whether breaking bad news can actually be learned. Radziewicz & Baile (2001) suggest it can. They indicate that the "skill" involved in the learning process is more intuitive than analytical: it involves responding to the patient's feelings rather than the content of what they say. Here, the focus appears to be on tacit instead of objective knowledge. The news-giver, in other words, should concentrate less on the informational aspects of the encounter - i.e. assessing verbal and visual cues from the patient and then responding from a predetermined repertoire of scripted actions or phrases - and more on the general feeling of the situation. Langewitz (2007) likens this general feeling to an "atmosphere" and suggests that, in relation to breaking bad news to patients, "sensing an atmosphere helps to have an idea of which behaviour is appropriate" (pp.322). Once again this draws us to think about the ultrasound scenario.

Perhaps the skill involved in being emotionally receptive is less about learning what to do and more about learning what *not* to do. The posturing of "cool detachment" that doctors naturally effect (Fallowfield, 1993), or the "detached concern" associated with the caring professions (Chambliss, 1996) are both candidates for being "unlearned," so to speak. But this would require the person giving the news to be open to their own emotions (the same emotions which trigger the "mum effect" - like fear, for example) as well as those of the patient. Current guidelines, as we have seen however, attend to the emotional aspects of the encounter with at best a cursory glance, and at worse a rather blinkered evasiveness.

Arber & Gallagher (2003) suggest that breaking bad news guidelines focus more on the emotions of the person receiving the news than the person giving it, and that the role of the latter should be made more explicit. Baile et al. (2006) (the founders of SPIKES) admit that the emotions of the news-giver are important, but only because they should be avoided. They argue that if a doctor feels sympathy, anxiety or guilt, they may adopt unhelpful behaviours such as giving false hope or prescribing unnecessary treatments. Strauss et al. (1995) further suggest that the emotional

reaction of some parents to bad news regarding their child can make doctors uncomfortable. Doctors, they reason, may identify with the parents' plight and begin to fear the personal emotions it invokes. Objectifying the interpersonal process and reducing it to an act of information-giving, Salander (2002) suggests, is one way that doctors can isolate themselves from their patients and reduce their own anxieties. This observation was supported by participants in a study by Myers et al. (2007) who discussed a form of "shutting down" or building temporary emotional barriers to maintain not only composure and professionalism at the time of providing a positive HIV diagnosis, but also a sense of stability. Several consciously told themselves to "shut down" to avoid feeling remorseful and shocked, and to protect themselves from impending occupational "burnout."

The latter is a classic example of "emotion-focused" coping. Lazarus (1999) suggests that empathy stems from a basic human connection, which puts us "... in tune with the other person's suffering" (pp.245), but which we must learn to distance ourselves from. The purpose of distancing is to avoid becoming overwhelmed by too much emotion, as doing so keeps us in a position to help – i.e. provide empathy. Withdrawing from the clinical role to avoid the stress of breaking bad news, as Myers et al. (2007) observed, does indeed reflect the notion of distancing. But it can also lead to feelings of depersonalisation and unhappiness. Some participants in the latter study admitted to drinking increasing amounts of alcohol after work and comfort eating. Folkman et al. (1986) suggest this type of behaviour is typical of emotion-focused coping, particularly when situations are deemed unchangeable.

Such evidence suggests there may be negative consequences associated with maintaining a level of emotional detachment when one's natural instinct is to get involved. Emotional distancing may also require considerable effort. Hochschild (1983) describes the phenomenon of masking a true emotion and then projecting another - possibly one which may be deemed more socially appropriate - as "emotional labour." By withdrawing from the clinical role, the participants in Myers et al.'s (2007) study had initiated the first stage of emotional labour (i.e. avoiding genuine emotions), which is reminiscent of the posture of "cool detachment" adopted by many doctors (Fallowfield, 1993). Unfortunately, if emotional labour is engaged over prolonged periods it can be associated with an incremental build up of stress and possibly result in "burnout" later on (Kash et al., 2000). This is the very thing that Myers et al.'s participants were trying to avoid.

Empathy, according to Lazarus (1999), encapsulates both emotional sensitivity and helping behaviour. It also requires the operation of cognitive emotional distancing to render it useful. The ability to learn how to distance oneself emotionally is, Lazarus suggests, particularly important for those who work in a healthcare setting. To avoid burnout, a distancing reflex has to be developed which suppresses the basic human capacity to resonate with the emotions of the patient – i.e. the innate ability to experience their emotions directly. The latter is know as "emotional contagion" (Hatfield, Cacioppo & Rapson, 1993). Once we have stepped back, so to speak, we are then, according to Lazarus, able to effectively help the suffering person. Interestingly, Dias et al. (2003) state that "... empathizing with a patient involves

making a connection with him or her" (pp.594). This suggests that the innate connection afforded by emotional contagion is naturally absent from the doctor-patient relationship. Dias and colleagues, however, were speaking from the perspective of oncology, where, perhaps, the overwhelming association with bad news has conditioned the emotional distancing reflex in the doctor to the point of eradicating any trace of emotional resonance with the patient. In the field of prenatal ultrasound, such conditioning would be highly unlikely due to the majority of scans being normal, happy events. Empathy, during a bad news scan, would possibly involve higher levels of contagion and genuinely experienced emotion on the sonographer's behalf. The absence of a conditioned emotional distancing response could be one reason why sonographers often feel unprepared and upset when breaking bad news to pregnant women (Saviani-Zeoti & Petean, 2007). However, current guidelines for breaking bad news stem from oncology, where empathy is dissociated from emotional contagion and viewed as a process which follows information-giving (Baile et al., 2000).

Larson & Yao (2005) argue that, in the clinical setting, being empathic often requires displaying an emotion which one does not necessarily feel (i.e. emotional labour). Once again this reflects the idea that there is either an initial lack of emotion (due to the conditioned cognitive suppression of emotional contagion) or that an unwanted emotion is being experienced. Either way, this suggests that empathy is a rather effortful process. Larson & Yao (2005) describe empathy in terms of "internal and external emotion management" (pp.1103), and say that managing emotions effectively requires two forms of acting: surface acting initially – to display the required emotion;

and then deep acting (rather like method acting) – to try and experience the emotion being displayed.

Dow et al. (2007) took the acting premise one step further and decided to see how effectively empathic acting could be learned. The authors, with the help of theatre professors, trained twenty medical students how to act empathically. Their training included the following techniques: listening for subtext, listening for values and strengths, making links to one's own experiences, strategies for acknowledging the patient's feelings, physical expressiveness, body language, vocal presence, eye contact, breathing rhythms, and body positioning. Compared to a control group the students that had attended the acting course scored significantly better for empathetic communication, relating to the listener, nonverbal communication, respect for dignity, and overall impression. However, this was only in so far as their observable behaviour was categorized as such by a member of the theatre department.

The question arising from Dow et al.'s (2007) study is whether mimicking what are deemed to be the "objective" features of empathy (something which requires considerable cognitive effort) actually equates to genuine empathic understanding. Does empathic "acting," in other words, actually help the person who is suffering? Touching a patient on the arm or hand is often advised (McLauchlan, 1990; Buckman, 1992; Rabow & McPhee, 1999), yet patients can invariably sense whether such a gesture is spontaneous or deliberate (Randall & Wearn, 2005). A touch that is felt to be genuine can be appreciated, but one that appears forced can leave patients feeling

unsettled. Sensing the difference between a genuine empathic response and an "acted" one, would, we can suggest, require something more than a rational analysis of its objective features. Theatre professors may indeed see empathy in specific gestures or turns of phrase (Dow et al., 2007), but only so far as their definition of empathy allows them to. A patient's perspective is different, and probably relies more on feeling the emotion conveyed rather than defining it.

From the previous discussion we can suggest that empathy in healthcare, at least from a medical perspective, requires a form of "emotional labour" (Larson & Yao, 2005). The problem with this, Mann (2004) points out, is that after a while a dissonance occurs between having to act out emotions that are not necessarily experienced and wanting to experience them in order to be considered good at one's job. She refers to the emotional labour model of empathy as "people work" which, because of the inherent dissonance, increases stress and eventually leads to burnout (Glasberg, Eriksson & Norberg, 2007). This raises the question of whether caring for patients should be viewed in such a modular fashion, with information-giving and empathy seen ostensibly as two distinct, cognitively controlled processes.

From the perspective of current breaking bad news guidelines, providing empathy is often viewed as a step that follows information giving. The SPIKES protocol is testament to this (with information at step 4 and empathy at step 5 - see Figure 3, pp.9). The steps are considered separate: information is given primacy, while empathy is an adjunct. Although this separation would appear purely analytical and imposed for

pragmatic reasons, i.e. for the ease of following a stepwise plan, the authors of SPIKES suggest that "...each step must be carried out and, to a great extent, the successful completion of each task is dependent upon the completion of the step before it" (Baile et al., 2000, pp.305). We must, therefore, infer that according to SPIKES, addressing the patient's emotions, in other words - empathising, can only occur *after* the bad news has been delivered. In reality one might assume that information can be given in an empathic manner, the two processes being mutually interactive, perhaps with each guiding the other: the provision of unwanted information may elicit, for example, an empathic manner, which in turn modifies the way the information itself is transmitted. Baile et al. (2000) do admit that "... not every episode of breaking bad news will require all of the steps of SPIKES," yet they add, as if to emphasise the absolute necessity of the plan, "...but when they do they are meant to follow each other in sequence" (pp.305).

Bryant (2008) also suggests "stepping back" from information-giving mode before exploring the patient's feelings about what they have been told. It is as though information-giving and empathy rely on two distinct processes. Perhaps, information-giving requires a higher level of cognition, rationality and judgement, whereas empathy relies more on intuition and works at a contagious, visceral level. In other words, you have to "think" about *what* to say, but you get a "gut feeling" about *how* you say it (Gigerenzer, 2007). In this respect, Barnett et al. (2007) describe information-giving as a skill which can be taught, and empathy as an innate ability, which can only be nurtured in the professional setting. It would appear, then, that

breaking bad news requires both learning and experience - as the mental acuity of information processing and delivery must, in some way, be supported by an intuitive, experientially based empathic understanding.

Norfolk, Birdi & Walsh (2007) try to combine the mental and intuitive elements of a clinical consultation by suggesting that a patient's level of understanding is related to a doctor's empathic accuracy. The latter, they say, is not mystical but involves the use of specific skills comprising of cognitive, affective and behavioural factors. In their model of "therapeutic rapport," Norfolk and colleagues suggest that certain "innate" mechanisms trigger both cognitive and affective forms of empathy. The latter relate to both understanding and feeling the patient's emotions accordingly. The innate mechanisms appear to refer to a spontaneous engagement with and interest in the patient, which suggests elements of emotional contagion or resonance. The authors, however, infer that affective empathy occurs only after a conscious evaluation of the patient's emotional state has been undertaken and has supplied clues to the patient's thoughts and feelings. This is almost the reverse of emotional contagion, where emotions are first experienced directly and then evaluated. In addition, the authors suggest that when the innate capacities are absent, they can be consciously *simulated*, indicating that a "theory of mind" view of empathy is at the heart of their model. Regardless of how empathic understanding is achieved, the important aspect, for Norfolk and colleagues, is how verbal and non-verbal behaviours are used to engage with the patient in establishing rapport. Again, we can see how the medical perspective on the doctor-patient interaction has left out the background emotional

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"atmosphere" of the situation, choosing instead to focus on the detached cognitive perspective of the individuals involved.

Norfolk, Birdi & Walsh (2007) interviewed a number of general medical practitioners to see if their experiences supported their model of therapeutic rapport. Many of the participants agreed that empathic skills – i.e. picking up clues from the patient and building perceptions about them – were part of a consultation, but there was also something more fundamental at work. The latter, they said, "did not involve picking up clues, but rather referred to the concentration on and interest shown in the patient" (pp.694). This was embodied by a notion of "attending" to the patient which could often be an implicit process.

SPIKES has been influential on recent research and appears to represent a "normative frame" for good practice when breaking bad news. It offers instructions on *what* to do but now *how* to do it. In this sense it overlooks the implicit skill of involved human interaction. According to McLeod (1994), this is one of the problems associated with applying normative frames to situations in which individual existential concerns take precedence. One may, for example, correctly identify a patient's emotional reaction to bad news, but almost certainly fail to "tailor" a suitable empathic response based on the context of the situation and the meaning that it held for that person at that particular time. As an alternative to rigid, goal-oriented frames, Cooper and McLeod (2007) suggest a more "pluralistic" approach. From a counselling perspective they encourage practitioners to "... explore the goals that are already there, in terms of

being implicit in the structure of the person's engagement with his or her life-space" (pp.135). This, the authors suggest, "... is a process that is attuned to the intentionality of the client" (pp.138).

We could argue that the implicit knowledge gained during a bad news consultation may be as important, if not more important, than a rational analysis of it, particularly when it comes to empathic understanding. An intuitive grasp of a patient's emotional state would, indeed, be an advantage in the ultrasound scenario, where the sonographer has little time for conscious evaluation. However, we should not decry the importance of conscious evaluation, but simply suggest that without an openness to the background process of emotional contagion, one may preclude the very foundation on which intuitively guided judgements are made. Without it all that may be left is a mental script bereft of any human connection and, therefore, any value in helping the patient come to terms with the bad news. It is this background process, after all, which creates the emotional atmosphere of a prenatal scan. In turn, a woman's attunement to this atmosphere can alert her to the fact that something may be wrong with her pregnancy long before any explicit information has been divulged (Baillie et al., 2000; Mitchell, 2004). Attending to the background is important if empathic understanding is to reach deeper than the superficial cognitive evaluation afforded by the medical models of care. Next we shall look at a perspective on patient care for which the background is an integral part.

2.5.3.2 The nursing perspective

In a study by Wakefield, Cooke & Boggis (2003) medical and nursing students were brought together and given scenarios where patients (played by actors) had to be given bad news. Without prompting, the medical students automatically assumed the role of news-giver while the nurses provided emotional support for the patient. When asked why they did this, the nurses said that part of their duty was to "pick up the pieces" (pp.56) if a bad news interview "got messy." Likewise, the medical students suggested that the nurses provided a "safety net" when the patient reacted badly to the bad news. Both groups of students felt that the other group had a different perspective on patient care to that of their own. The nurses described the medical students as having a paternalistic attitude, while the medical students described the nurses as being more emotional.

This illustrates the division between the information giving and empathic aspects of breaking bad news. As we have seen, the medical literature on breaking bad news often treats information giving and empathy as two separate steps. Wakefield and colleagues' (2003) study infers that the nurse's role in breaking bad news obviates the need for any empathic understanding on the doctor's behalf. This is nothing new. "A sensitive nurse is a great asset," McLauchlan (1990) once advised doctors, "... a nurse can be a great support and can carry on where you leave off" (pp.301). McLauchlan expounds the idea that there can be no substitute for genuine understanding and support; only he suggests that it should be provided by a nurse, not a doctor. This perspective typifies the separation of information-giving and empathy that we see in

current advice. Not only are information-giving and empathy conceptualised as two separate steps in breaking bad news, and, indeed, two separate modes of processing, but they have been embodied by two entirely separate professions. This does not bode well for sonographers, who have to combine both information-giving and empathy in a single, real-time situation. Such observations, however, are based on the impression given by the medical model of breaking bad news, which was devised to assist doctors (specifically oncologists) during the news-giving process. Perhaps the advice aimed at nurses - who traditionally deal with the emotional after effects of breaking bad news could provide a different perspective, and help to build a more holistic picture of the situation faced by sonographers.

Unfortunately, there are no nursing models associated with breaking bad news. There are, however, nursing models of care, which have followed a largely existential path (Fjelland & Gjengedal, 1994). This has lead to the majority of nursing research into care being undertaken from a phenomenological perspective (Koch, 1995). In relation to breaking bad news, the nursing profession has dealt with aspects of care following the communication of unwanted information. Simply "being-with" patients and "being-there" for them underpin the nursing profession's idea of empathic care (Dunniece, Slevin & Slevin, 2000; Mcilfatrick, Sullivan & McKenna, 2006).

Benner & Wrubel (1989) refer to this type of care as "presencing," a term derived from Heidegger's (1927/1962) use of the words "Anwesenheit" (pp. 47) - meaning a temporal presence - and "Zugegensein" - indicating a background presence (pp.105).

Dunniece, Slevin & Slevin (2000) found that the essential structure of presencing, or "being present," was amalgamated from several themes including; being there; becoming closer; time as an influence; and learning by reflection. Simply "being there" in the sense of "more than a physical presence" (pp.611) was described by the nurses in Dunniece and colleagues' (2000) study as a central role.

Swanson-Kauffman (1986) suggests that caring for women following pregnancy loss involves "being with" them in an engaged manner. In addition, she says that "... being with can be practiced only by a caregiver who is willing to existentially live another human being's experience" (pp.41). And for health care professionals this, according to the authors, means dropping the professional facade and willingly entering into an emotion-laden, person-to-person relationship. This is almost a reverse of the medical model's implicit acceptance of emotional distancing as a prerequisite for empathic helping behaviour.

Nurses often suggest that emotionally engaging with patients can be associated with more positive results (Henderson, 2001). Although the mechanism of how this is achieved remains unclear, some supporting evidence comes from female patients in a study by Brooks & Phillips (1996). These patients suggested that emotional engagement from health professionals made them seem more empathic and approachable, and as such, more open to answering questions. Alternatively, Riemen (1986) notes that non-caring amounts to "not being present" with the patient, but being there "only to get the job done." This lack of "presencing," as Benner & Wrubel
(1989) call it, created a feeling of isolation for patients in Salander's (2002) study, whose accounts of receiving bad news reflected that not "being with" and "being alone" were sources of anxiety and despair. It is likely that the implicit "distancing" associated with medical models of breaking bad news may have contributed to the feelings of isolation and anxiety that the patients described.

Mcilfatrick, Sullivan & McKenna (2006) suggest that "being with" deals with the emotional as well as the practical aspects of caring. The latter may entail presenting information in the context of patients' hopes and expectations (Radziewicz & Baile, 2001). Although providing hope appears to be an important factor of breaking bad news (Peteet et al., 1991; Ptacek, Ptacek & Ellison, 2001; Sweeny & Shepperd, 2007), it may be difficult to provide in the ultrasound scenario, especially when a foetal death has occurred (Kohner & Henley, 2001).

McCreight (2005) suggests that, through experience, nurses can develop a tacit knowledge of how to deal with parents whom have suffered a pregnancy loss, which, she says, is often "called upon implicitly in response to the demands of particular situations and contexts" (pp.441). Heath (1998) also notes that "… nursing has progressed from a reliance on empirical theory applied to practice, to a recognition that experience develops knowledge that can guide the actions of practitioners" (pp.1054). This is far removed from the rule-based protocols of the medical profession that guide the news-giving process.

Although there is a paucity of nursing literature related directly to the task of breaking bad news, the few studies which look at the caring aspects suggest there is more to it than merely communicating information. Rather than rule-based behaviour, implicit knowledge takes precedence, encompassing existential concerns such as "being there," "being with" and "presencing." Lykkeslet & Gjengedal (2006) refer to this type of knowledge as "contextual knowledge" and differentiate it from the practical, scientific knowledge that nurses also use. They suggest that contextual knowledge stems from being in a particular situation at a particular time, reflecting Benner et al.'s (1989) temporal and spatial derivation of the term "presencing." They state that, "practical knowledge, as a flexible doing knowledge, presupposes a presence which encompasses being and doing at the same time" (pp.82). We can draw an analogy between the practical, science based tasks that nurses carry out and the rational aspects of information-giving in breaking bad news. Both are skills that require factual knowledge and both can be learned. We can also draw comparisons between nursing care and the empathic side of breaking bad news: the former presupposes a presence and the latter rests on an attunement to the background emotional atmosphere of the situation (i.e. emotional contagion). Both "presencing" and "emotional contagion" appear to be physical, embodied processes. Both could be described as tacit phenomena, as they often operate beyond the realm of conscious awareness. Neither are guided by overt rules. One could therefore describe them as "intuitive" processes.

Spichiger, Wallhagen & Benner (2005) describe nursing care as a type of "phronesis," an Aristotelian concept which reflects the way an expert practitioner might automatically respond to a situation by doing the appropriate thing, at the appropriate time, in the appropriate way (Dreyfus, 1986). Benner, Hooper-Kyriakidis & Stannard (1999) refer to this kind of anticipatory thinking-in-action as "clinical forethought," which Chan (2005) suggests is shaped by the clinical grasp of the phronetic practitioner in conjunction with their "being attuned" to the situation. It is interesting to note that Norfolk, Birdi & Walsh (2007), during the process of devising a highly conceptualised, cognitive model of empathy, found that news-givers kept making reference to the notion of "attending," which, as we discussed earlier, referred to the concentration on and interest shown in the patient. As the latter sounds too deliberative, we might suggest, rather, that it reflects an "openness" to the background emotional aspects of the shared situation, which is more in line with "presencing."

The nursing literature, on the whole, suggests that empathic care stems from being receptive to the patient's emotions, no matter how subtle, and that this, in turn, provides tacit knowledge which facilitates the ability to respond intuitively to their needs. Empathic care is conceptualised by phronesis and based on a strong connection between practitioner and patient. This opposes the medical bad news models which advocate distancing. Yet the latter do not deny the existence of such a connection, or the receptiveness afforded by emotional contagion - they merely close it off as a precursory step in the information giving process. The fact that attempts to open it up again at a later stage (such as step 5 in the SPIKES protocol) are often perceived as disingenuous (Randall & Wearn, 2005) indicates that emotional distancing may preclude certain advantages that presencing might offer. This is particularly relevant to

the ultrasound scenario where bad news has to be given both quickly and empathically. There is little time for planning such an interaction, so intuitively knowing what to say and do on an emotional level would certainly be an advantage. But what is it that should be "said" and "done?" What makes the process easier for the women involved? In the following section we shall attempt to answer such questions.

2.5.3.3 The women's perspective

Lalor, Begley & Galavan (2009) suggest that women cope with a diagnosis of foetal abnormality by moving through four temporal stages: assume normal, shock, gaining meaning and rebuilding. Assuming everything will be normal is, according to the authors, one consequence of receiving inadequate information regarding the capabilities of ultrasound. (As Lalor and colleagues' study was undertaken in Ireland, the latter may, as we already mentioned (Section 2.3.1), be due to cultural influences.) *Shock* is characterised by disbelief, which means that many questions women have will only arise after the event. By this time a referral to a specialist may have already been organised by the sonographer (RCOG, 2010). Women may have also received written information about the abnormality, a time frame for their next appointment and details of whom to contact for support. In this respect, a protocol for sonographers - as suggested by Simpson & Bor (2001) - may indeed be appropriate for ensuring all the aforementioned practicalities have been met. The gaining meaning and rebuilding phases that follow are crucial to the women being able to move on and finally rebuild their lives. Therefore, the interaction with the sonographer is important during the brief period of *shock* as the type of information and the manner in which it is given affects a woman's ability to cope in the future.

Lalor, Begley & Galavan (2008) suggest that women tend to use one of two coping styles when receiving information: *monitoring* or *blunting*. Monitors want as much information as they can get about the abnormality, often become distressed when it is not available, and resort to researching on the internet. Blunters, on the other hand, avoid negative information and want to be reassured about what is normal rather than abnormal. The authors advise that health professionals dealing with women following an abnormal scan result should be aware of which type of coping a woman uses and tailor the information accordingly. Sonographers, therefore, would have to somehow assess and categorise their patients as either "monitors" or "blunters" in the initial stages of a routine scan.

Lalor et al.'s (2008) rational approach suggests that a sonographer's cognitive capacities are key to analysing a woman's coping style and transmitting suitable information. This is a somewhat simplistic analysis culminating in a binary decision between whether a woman is a "monitor" (so give more information) or a "blunter" (so give less information). It addresses the "what" of information giving but not the "how." Of course, receiving clear and prompt information is important to women following news of a foetal abnormality (Alkazaleh et al., 2004; Lalor, Devane & Begley, 2007) but so is the way the news is delivered (Bricker et al., 2000). It is the latter which Statham & Green (1993) suggest "presents the greatest challenge" to practitioners (pp.175).

The National Institute for Clinical Excellence (NICE, 2008) recommends that good communication is essential in supporting women immediately after receiving bad news. Indeed, a perceived lack of support can leave women feeling dissatisfied with antenatal care in general (Hildingsson & Radestad, 2005). Alternatively, a degree of support can help those who have had an initially negative experience become more positive (Waldenstrom, 2004). Being supportive, it seems reasonable to suggest, relies on more than tailoring information to some pre-defined coping strategy and then communicating it. We must also acknowledge the background human interaction and be minded of the more existential aspects of empathic understanding and presencing in defining support.

The following is an illustration of how information-giving and support can differ in terms of the level of human interaction involved. Cope et al. (2003) decided to find out whether the way information was given to women following a diagnosis of ultrasound detected foetal abnormality had any impact on their levels of anxiety following a scan. They gave some women written information and gave others an audiotape of the ultrasound consultation. Two weeks later they measured the women's anxiety. The women who had the tapes were, on average, less anxious than those with the written information. Logically, one would expect the opposite to be true as written information has been cited as a key player in minimising anxiety (Lalor, Begley & Galavan, 2008). It seems that the tapes encouraged the women who had them to contact the department more frequently than those who did not have them. In other words, the tapes encouraged support seeking behaviour, and it was that inherent

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human contact the women received in the process that, the authors suggest, lowered their anxiety. Indeed, coping in isolation following an adverse prenatal diagnosis can invariably leave women experiencing greater anxiety (Korenromp et al., 2005), whereas the human contact involved in sharing their experience with others can be highly beneficial (Gordon et al., 2007). How the tapes achieved this is not clear, especially as only half the women who had them actually listened to them. Perhaps the tapes, via their disembodied voices, retained a thin slice of that initial human interaction experienced by the women during the ultrasound consultation. That reminder, in turn, may have been sufficient to prompt a desire for further human contact.

In another study, Hunfeld et al. (1999) investigated how satisfied women were with an ultrasound consultation during which they had received news of a foetal abnormality. They focused on how the communication skills of the doctors performing the scans affected satisfaction. Consultations were videotaped for forty women immediately after a foetal anomaly scan. The doctors' skills were divided into information giving (cure behaviour) and empathic (care behaviour). Their affective behaviour was coded from the tapes by the researchers. The women rated their satisfaction using a questionnaire. The results showed that information giving skills were rated highly, as almost all of the women remembered what they had been told about the location and severity of the abnormality one week after the scan. In addition, most of the women were fairly satisfied with the care they received. Rather surprisingly, however, the more dominant and assertive the doctor was perceived to be, the more satisfied the

women became with the consultation. Dominance and assertiveness suggests control, which is far removed from the sensitivity and openness shown by nurses providing empathic care.

When Ambady et al. (2002) analysed doctor-patient consultations their results clashed with those of Hunfeld and colleagues: they found that dominance and assertiveness was positively correlated with *dissatisfaction* and complaints. Not *satisfaction*. In fact, when a doctor behaved in a dominant way, they were more likely to be sued. However, in Hunfeld et al.'s (1999) study trustworthiness and expertise were also qualities that the women valued. The authors suggest that, because rapid decisions often have to be made about the wellbeing of the foetus following detection of an anomaly, a trustworthy, self-confident and decisive doctor may be seen as a "tower of strength" (pp.1046). In this respect the doctor would be able to lead the women and their partners through the decision making process.

There is a fine line, however, between leading someone to a decision and coercing them into making one. Statham, Solomou & Green (2001) found that, following a diagnosis of foetal abnormality, perceived pressure from health professionals was associated with lower satisfaction of care for the women involved. Despite this, having the seriousness of the information conveyed was valued, as the women believed it helped prepare them for further tests. Women, this suggests, do not want to be given false optimism. Nor do they want to feel they are being hurried into making decisions without having all their questions answered (McIntosh, 1994). Nicol (2007) infers that pregnant women tend to adopt submissive roles during ultrasound, as sonographers – despite the majority being female – are imbued with typically male (and therefore dominant) characteristics due to the nature of the technology they use. Perhaps some women, like those in Hunfeld et al.'s (1999) study seek direction when being told of abnormalities and a dominant, decisive and knowledgeable caregiver may be the best person to provide it.

It is clear that women want information quickly following the detection of an abnormality during an ultrasound scan (Alkazaleh et al., 2004) and this is something sonographers are in a position to provide. Women, however, cope with information in different ways, which means that the sonographer has to be sensitive to their individual needs (Lalor, Begley & Galavan, 2009). The latter, we might suggest, requires a connection that reaches deeper than a superficial analysis of their objective coping behaviour. Women want to feel they have a relationship with the person scanning them and they want both themselves and their baby to feel valued when something goes wrong (Walker, Miller & Dalton, 2008). In other words, they want a human connection in which a genuine empathic understanding resides. This brings us back to the existential aspect of nursing care.

Traditionally, as our previous discussions suggest, doctors provide information while nurses provide empathy. This is essentially the medical model of breaking bad news. Both professions have differing perspectives on what it means to provide care. It appears that doctors can benefit from being assertive, knowledgeable and strong in order to guide future decisions - something women appear to be satisfied with (Hunfeld et al., 1999). Nurses on the other hand, have an innate way of responding tacitly to the emotional needs of a woman who is suffering a grief like response to bad news. Both, in their own way, constitute empathy. After all, empathy is a form of helping behaviour. The medical model of bad news addresses the practical needs (information), and the nursing model of care addresses the emotional needs (support). In the immediate, real-time environment of an ultrasound scan a sonographer, it seems, has to combine both facets of this ineffable skill we call empathy. Information giving appears to be straight forward, yet tacitly responding to a woman's emotional disposition in an appropriate manner is difficult to qualify and virtually impossible to quantify. The true nature of empathy provides a puzzle; one we shall attempt to unravel in the following chapter.

CHAPTER 3 Literature Review: Philosophical Issues

3.1 The nature of empathy

We have suggested that medical models of breaking bad news focus on informationgiving and minimising stress by consciously appraising the patient's emotional disposition and responding with appropriate empathic responses. The suggestion is that such responses can be learned in advance and applied at a specific point in the transaction. We pointed out earlier that this represents a "computer-like" model of empathy with data input (patient emotional response), data processing (news-giver cognitive appraisal), and data output (selected empathic behaviour) (Section 2.5.3.1). Nursing theorists, on the other hand, ostensibly treat empathic care as implicit, automatic and based on tacit knowledge. The latter focus on existential concepts such as "presencing" and "being-with." We could call this a "phronetic" model of empathy, in which the care-giver simply responds to the person being cared for automatically. Research behind the medical and nursing models has taken two very different paths, philosophically speaking: the former being rational and focusing on cognition, and the latter being phenomenological and focusing on intuition. However, by pointing out the different philosophical positions underpinning these two "opposing" models of empathy, we can illustrate a fundamental similarity between them.

3.2 The philosophical division of empathy

The two protagonists in this illustration are the French philosopher Renee Descartes and the German phenomenologist Martin Heidegger. The latter has been cited as overturning two thousand years of traditional philosophical thought epitomised by the work of the former (Dreyfus, 1991). According to Dreyfus, Descartes' mind-body dualism was the culmination of a philosophical ontology based entirely on defining what exists in terms of its "substance." (Substance in this respect designates a self-sufficient entity with isolable properties.) Descartes was particularly interested in the separation of the mind (thinking substance) and the body plus its environment (extended substance). He therefore defined the essence of a human being as rationality, which was, in turn, the basic property of a self-sufficient mind. The human body, on the other hand, remained nothing more than an aspect of the extended world outside the mind.



Figure 7. The differing ontological perspectives of Descartes and Heidegger

In Heidegger's (1927/1962) view (Figure 7), human-being (Dasein or "being-there")

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is defined by its "activity" (existence). Our involvement in the world, in this respect, occurs prior to, and is more basic than, the conscious deliberation which underpins rational thought. During introspection, we temporarily break out of this involved activity and assume a "detached" perspective. From this detached perspective there transpires the naturally "rational" assumption that we are, in some basic way, separate from everything around us. Other human beings also become separate entities and, as such, fundamentally unknowable. Heidegger's argument is that the involved activity constitutes an omnipotent background on the basis of which introspection and rational thought can occur. The latter are secondary phenomena. Often, however, the background gets overlooked by our natural sense of detachment when this occurs.

Empathy, according to the rational cognitivist viewpoint is a conscious process through which one individual gains an insight into the mind of another, particularly with respect to the type of emotion they might be experiencing. Cognitivism, however, as Dreyfus (1991) points out, is merely an extrapolation of Cartesian ontology as it posits the source of human activity in reason, which is itself based on complex and often covert mental processes. (From a philosophical perspective "mental" refers to events occurring exclusively in the mind: a self-sufficient entity isolated from the external world.) An element of cognitivism is evident in the conception of empathy devised by the medical model of breaking bad news. The latter is based on the assumption that a certain degree of conscious deliberation is required to elicit perceptual cues which are then used to build a mental picture of what the other person (who exists beyond the knowable boundaries of the mind) might be experiencing. This

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is also known as an "affective theory of mind" view (Shamay-Tsoory et al., 2005), and is thought to stem from a purely reflective standpoint. From this standpoint, other people are essentially external and unknowable: their emotions become mere reflections of their own internal mental processes and it is only through a theory of mind that they might be deduced. The Heideggerian perspective, on the other hand, suggests that empathy is essentially "being-with" others, which is a primordial ontological structure of human-being (dasein). We are always in some way "attuned," not only to other people's emotions, but to the general mood of the situation that we share with them. In addition, being-with and attunement are both phenomena which occur prior to conscious reflection or theoretical development.

The parallel between "being-with" and the nursing profession's notion of presencing is clear. It should be noted, once again, that the medical models of breaking bad news - which have taken cognitive stress and coping theory as their foundation - do not deny the existence of "being-with" as a basic phenomenon. It is reflected in Lazarus's (1999) conception of empathy as a cognitive process, which has, *at its foundation*, a basic human capacity to experience the emotions of others. For Lazarus, empathy encapsulates helping behaviour, and in order to help, he reasons, we must distance ourselves first. Distancing is a measure which prevents us becoming overwhelmed by our basic human capacity to experience another's emotional state, and, therefore, allows us to act effectively.

Lazarus's "basic capacity" and Heidegger's "being-with" appear to be the same

phenomenon. They also appear to exist at an ontologically primordial level from which cognition, appraisal, and a theory of mind view of empathy subsequently arise. By making this observation, we are not denying the existence, or even the value of the latter, but merely positing that their ability to assist in the empathic process relies on a more fundamental human connection. So far we have referred to this connection as *being-with* o r *being-attuned;* terms borrowed from Heideggerian philosophy. Establishing a common ground between the existential and cognitive notions of empathy, therefore, may further the understanding of the sonographer's role in breaking bad news, as this, we have already suggested, is a role which falls in the middle ground between the medical (cognitive) and nursing (existential) perspectives.

3.3 The ontological division of empathy

We can suggest that, on the whole, the medical conception of empathy in breaking bad news is grounded ontologically in the mental processes of the news-giver. This places it firmly in the foreground of consciousness and within the realm of the Cartesian rational subject. Nursing empathy, on the other hand, is grounded in a sensitivity to the background processes that inhere within the shared situation between practitioner and patient. Ontologically, the latter kind of empathy is "in-the-world." It is not confined to a subject or attributable to the properties of a particular object. Nursing empathy - or rather, the existential conception of empathy – rests on the ability of the practitioner to attune themselves to the emotional atmosphere of a situation. We have encountered the phenomenon of emotional attunement in the literature (Chapter 2), both from the patient's and the practitioner's perspective in the breaking bad news

scenario. Indeed, the medical conception of empathy acknowledges this attunement, albeit as a distraction to the cognitive appraisal processes that follow: distancing is, therefore, advised.

Fundamentally, it appears we are dealing with two ontologically distinct conceptions of empathy, although from a Heideggerian perspective it appears that the rational, medical one, can be derived from the existential, nursing one. The derivation works on the basis that intuitively guided action can give way to deliberative, rule based action. This is particularly pertinent to situations where the routine flow of activity is disturbed by a particular phenomenon, especially if the skills for dealing with that phenomenon are absent, or insufficiently developed to incorporate it into the routine flow of activity. For example, many practitioners feel unprepared when bad news has to be communicated during a prenatal scan. They may have to stop and deliberate over the correct words to say or the right body language to use, and at this point guidelines may be followed (SPIKES), or rules of behaviour applied (acting). However, we have argued that this ontologically rational model of empathy may be a poor substitute for genuine empathic care. The question we must, therefore, ask is: what constitutes an ontologically existential mode mode of empathy, such as that described by nursing practice?

We have posited an "attunement" to the emotional atmosphere of the shared situation between practitioner and patient as the basis of genuine empathy, and this has been grounded existentially in "being-with" as a primordial structure of dasein (humanbeing). The latter is simply Heidegger's phenomenological observation that human beings are always already in a world that presents itself in terms of other human beings. We are always "with" others from the moment we are born and we develop skills for interacting with them, as well as skills for dealing with the world through which we define ourselves by the very nature of our "existence" (i.e. the mode of being of dasein, whereby dasein defines itself through what it does). An attunement to the emotional atmosphere of a shared situation, we might suggest, is one of the most basic skill associated with being-with others. This may have an underlying biological source, as, from an evolutionary perspective, the attunement of a parent to the emotional needs of a new born baby, and of that baby to its parent would certainly be an advantage. All we will suggest, for now, is that certain neurological activity may provide the causal basis for how new born babies mirror adult behaviour (for example, tongue pulling and head rotation) (Meltzoff & Moore, 1989), and how emotional resonance occurs between human beings. We shall pursue this in more detail in Chapter 6.

Let us agree, for now, that an emotional attunement to others is probably a necessary foundation for genuine empathic concern, and a precursor to the more rational emotional appraisal and empathic helping behaviour which have been the focus of the medical models of breaking bad news. (For simplicity and consistency, we shall refer to emotional attunement as emotional resonance (ER), and emotional appraisal as emotional deduction (ED) from now on.) We could also agree, at this juncture, that the focus of the nursing and medical professions on both ER and ED, respectively, stems from their differing philosophical perspectives, and that these different perspectives stem from two different ontological frames of reference. This, however, brings us no closer to reconciling either perspective with the middle ground that sonographers occupy. Perhaps, then, it would be pertinent to adopt a new perspective on the problem of what we now see as an ontological division of empathy; one that brings ER and ED together as subsets of a larger and more holistic system.

3.4 Being-in-the-world: A pre-ontological perspective on empathy

From a Heideggerian (1927/1962) standpoint, human beings and their world are inseparable, hence the notion of dasein as being-in-the-world. This is a very simple concept to grasp once we forgo the Cartesian misconception that the essence of a human being lies in the mind. The latter, we might suggest, is simply a conscious, and rather privative, reflection on the vast array of involved activity that human beings are part of. We might also suggest, in accordance with Merleau-Ponty's (1945/1962) phenomenological view of perception, that such an involvement is mediated by the body. When we forgo the idea that the body is merely a vehicle for consciousness, we can start to glimpse the holistic combination of our bodies, the world they inhabit, and the people and things we interact with in the shared situation. Consciousness merely provides a small window on the involvement whole. As we begin to see ourselves amidst the interconnected referential totality of entities (including others) that go to make up what Heidegger (1927/1962) called the "worldhood of the world" (pp.91), the notion of emotional resonance (ER) as the basis for genuine empathic concern is a

rather intuitive concept. But let us not merely accept this philosophical argument, let us look at some of the scientific phenomena which support it.

3.4.1 Emotional versus cognitive empathy

When Hatfield, Cacioppo & Rapson (1993) first described emotional contagion, they suggested that it stemmed from an ability to "resonate" with other people emotionally – in other words, to feel what they feel. Hatfield and colleagues were suggesting that, quite naturally and unconsciously, people have an innate ability to "tune into" other people's emotions. This sounds rather mysterious, and one could easily be forgiven for positing metaphysical concepts to explain it: extra sensory perception (ESP) or mind reading, perhaps. From a personal perspective it appears irrational: how, for example, can I share someone else's internal experience of emotion and how can they share mine? The answer, however, is masked by the framing of the question. I only assume the experience is "internal" because I have fallen into the trap of adopting a traditional, reflective, Cartesian standpoint in order to ask the question in the first place.

This standpoint is exemplified by Sartre's (1943/1996) suggestion that between each person's mind and the external world there exists a "nothingness." For one person to have any direct knowledge of another they must bridge the "nothingness" between themselves and the world and also the "nothingness" between the world and the other person. This is quite some feat. Sartre, like Descartes (and despite being an avid fan of Heidegger (Cohen-Solal, 1991)), posited the essence of a human being within the self-

sufficient *cogito*, or mind. He called this essence the "for-itself," while the inanimate external world was referred to as the "in-itself." The primary difference between the two is that the former can relate to itself (or introspect), whereas the latter cannot. Here we can see that introspection - or the ability to think, as Descartes' (1637/2003) suggested with "I think therefore I am" (pp.17) - is considered our most basic property. Although Sartre insisted that, for human beings, existence preceded essence, his notion of existence in the for-itself was grounded, rather ironically, in a substance ontology; and substances, by their definition, have "essential" properties. Heidegger's notion of existence as activity, on the other hand, avoids such a pitfall.

When we take stock of all the involved activity that occurs prior to introspection we can see even more clearly that the Cartesian/Sartrean argument is flawed. A vast amount of skilled activity requires little thought when mastered: driving, for example, playing an instrument, conversing in one's native language, or simply standing the correct distance during a conversation (Dreyfus, 1986; Dreyfus, 2004). In terms of communicative skills, Hymes (2001) states that "linguistic competence is understood as concerned with the tacit knowledge of language structure, that is, knowledge that is commonly not conscious or available for spontaneous report, but necessarily implicit in what the (ideal) speaker-listener can say" (pp.54). Indeed, language would become almost impossible if every sentence uttered required intense deliberation and the complex application of pre-defined rules. This was partly Hymes' criticism of Chomsky's (1965) linguistic theory of competence and performance: "... a theory of competence," Hymes suggests, "posits ideal objects in abstraction from sociocultural

features... [and] the theory of performance... is essentially concerned with psychological byproducts of the analysis of grammar, not, say, with social interaction" (pp.55). Ideal objects and psychological byproducts could certainly be described as "essential" properties of the mind in a Cartesian sense. As Hymes suggests: "the controlling image is of an abstract, isolated individual, almost an unmotivated cognitive mechanism, not, except incidentally, a person in a social world" (2001, pp.56). Communicative competence, therefore, requires not only mental acuity but a sense of social involvement.

In practice, communicative competence covers what is grammatically correct as well as what is appropriate: it relies on knowledge as well as skill. We learn when to speak, when not to, what to talk about with whom, when, where, and in what manner. This is all part of the socialisation process. As Hymes (2001) says, "[Children] develop a general theory of the speaking appropriate in their community, which they employ, like other forms of tacit cultural knowledge (competence) in conducting and interpreting social life" (pp.61). In this respect, communicative competence can be viewed as a synthesis of an underlying system of knowledge and the skill needed for communication, where knowledge can be conscious or unconscious (Canale & Swain, 1980). Here, competence becomes dynamic, interpersonal, relative and defined by context. We might suggest, from a philosophical perspective, that communicative competence relies on being-in-the-world as opposed to being an isolated subject, which supports the argument in favour of Heidegger over Descartes.

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Basic communicative knowledge may be relatively simple to define, observe and evaluate, but, according to Bagaric & Mihaljevic-Djigunovic (2007), the same cannot be said for basic communicative skill. Skills related to the communication of bad news appear to be a subset of the wider social skills which become implicit (or tacit, as nursing literature suggests) when we familiarise ourselves with our world. As we suggested, familiarisation is part of the socialisation process which begins in childhood, is sensitive to culture, and eventually leads to a pre-ontological, pretheoretical "background" understanding of what it means to be a human being in a world of other human beings. In other words, it gives us the skills for dealing intuitively with the world and those who share it with us. This necessarily includes empathic skills.

Dreyfus (1991) argues that distance-standing practices are so implicit that they never have to be taught; we just absorb them from our culture. Indeed, standing the correct distance is an important social skill, much like the ability to sense someone's emotional disposition or mood, especially when we have to give them bad news. Csikszentmihalyi (1991) refers to the non-conscious operation of skills as "flow." In his book entitled *Flow: The psychology of optimal experience,* Csikszentmihalyi provides examples of people being "in flow," such as an expert mountaineer being inseparable from the mountain, or an elite sportsperson who is said to be "in the zone." Our ability to resonate with the emotions of others, we can suggest, is also part of our background familiarity with the world, and it stems from a type of involved activity that recent scientific research is just starting to illuminate.

3.4.2 The hidden flow of empathy

One explanation for resonance or emotional contagion lies in the ability of the human face to communicate a great deal of information about the way we feel. Ekman, Friesen & Hager (1978) turned the emotional activity of the face into a science, categorising no less than forty six facial action units - each comprising of different facial muscular contractions - which can be combined in various ways to depict emotions. Although we are generally unaware of our facial expression, it is invariably linked to our emotional state. Some suggest that it not only reflects our emotions but causes them: this is the basis of the facial feedback hypothesis (Buck, 1980). Strack, Martin & Stepper (1988) tested Buck's theory using an ingenious experiment which manipulated the facial expressions of people while they watched cartoons. What Strack and colleagues found was that the people who held a pen using their teeth (smile condition) rated cartoons funnier than those who held a pen using their lips (frown condition). This supports William James' (1884) much earlier suggestion that adopting a particular body state is often the precursor to experiencing an emotional feeling. Admittedly, in Strack et al.'s (1988) experiment the body state (facial expression) was forced, and held over a relatively long period of time, but this does not always have to be the case. In fact, it often is not.

Have you ever stepped off the kerb into the path of an oncoming vehicle? Was it only after you got yourself out of danger, with your pulse racing, that you *felt* frightened? I suspect it was. Darwin (1872) proposed the idea that emotions originate from the response that an organism has to its environment when it is in danger. When you

stepped off the kerb you more than likely jumped back onto it without first weighing up all the possible courses of action available. In other words, you immediately adopted a body state (jumping out of the way of the vehicle) that saved you. This, in essence, is an emotional response. What you later experienced in consciousness (be that fear, relief or shock) is an emotional "feeling" or "affect." This type of emotional response can even be witnessed in single celled organisms (Plutchik, 1962) which clearly lack the ability to rationalise their actions.

"An amoeba," Plutchik (1962) says, "can show protective behaviour [although]... the possibilities of withdrawal in an amoeba are limited to contraction or gross movements of the entire body" (pp.67). One can speculate that an amoeba has a far less complicated relationship with its environment than a human being. It undoubtedly lacks the conscious element of the emotion (i.e. the corresponding affect) as it has no brain from which a consciousness might develop. The fact that an amoeba exhibits emotion without affect illustrates the point that emotions are primarily bodily responses to the environment. They are also something that has evolved in humans to *accommodate* a conscious element. That an amoeba can elicit emotion without consciousness further suggests that consciousness is only a secondary phenomenon (as Heidegger 1927/1962 suggested). Relegating consciousness to second place, however, would have horrified Descartes and should worry all who still believe that rational thought is the essence of human existence. Our ability to resonate with the emotions of others is not, we might suggest, based on bridging a "nothingness" between consciousnesses (minds) (Sartre, 1943/1996), but stems from a pre-existing

connection between two organisms. In the case of humans, the latter is a bodily phenomenon. As the body includes the brain, we can intimate, for now, that the source of emotional resonance may belong, in part, to pre-conscious activity that flows from direct, and often subliminal, perception. This activity is more than likely neurological, a perspective we shall explore more fully in Chapter 6.

The neurobiologist Antonio Damasio (2006) suggests that our ability to learn by experiencing the affective consequences of our mistakes and successes, and then to reflect and plan ahead, has evolved from that phylogenically early emotional reflex still exhibited by amoebae. Consciousness, in addition, allows us to experience emotional affects from memory alone, without environmentally causal factors having to prompt a reflexive bodily action. It also allows us to speculate about the emotions of others and develop a "theory of mind" about them. The latter is Cartesian territory, and if we fail to see beyond the confines of consciousness to the intimate physical relationship our bodies have with the environment - a relationship from which all primary emotion develops - then we will also fail to see the primordial emotional connection that exists between human beings (i.e. being-with). Because our environment is physically complex we have developed a high level of dexterity and skill for coping with it successfully. But it is also *socially* complex, and yet the tacit skills we have developed for dealing with the social intricacies often go unnoticed. Emotional contagion may be one such skill. What better method of survival could there be in a social environment than being able to intuit another person's emotions and respond appropriately? As Damasio (2006) suggests, "... the consequences of achieving or not achieving a rarefied social goal contribute, albeit indirectly, to survival and to the quality of that survival" (pp.125).

Despite the fact that introspection can lead to a decoupling of emotion from direct environmental activity, we must remember that emotions are very much on the "outside" for all the world to see. They are, according to Ekman (1993), written all over our face. Mimicking someone's facial expression has been suggested as one possible mechanism by which emotional contagion may occur (Hatfield, Cacioppo & Rapson, 1993). The idea being that mimicked emotions are experienced directly via facial feedback (Buck, 1980). However, some emotional expressions can be so fleeting that they fall below the radar of our conscious awareness, and this raises the question of whether it is still possible to mimic them. Dimberg & Thunberg (1998) suggest it is, and refer to these fleeting moments of mimicry as "rapid facial reactions" (RFRs). Dimberg and colleagues discovered, using facial electromyography (EMG), that people can exhibit facial reactions to masked angry and fearful faces that are visible for only half a second. Sonnby-Borgstrom, Jonsson & Svensson (2008) had similar results, only in their experiment the faces were visible for less than twenty three milliseconds. The remarkable thing about the latter study is that, despite not even being aware of either the images or their own rapid facial reactions, the participants reported *feeling* the emotions that the faces conveyed.

Rapid facial reactions and emotional contagion offer a plausible explanation of how human beings might unconsciously tune into each others emotions, but a causal gap remains between mimicking and actually experiencing an emotion. There is still the question of how facial feedback actually works. How, for example, do women, during a routine prenatal scan, sense that something is wrong before an abnormal result is disclosed (Mitchell, 2004)? How do they feel the atmosphere change from social to clinical and detached (Baillie et al., 2000)? In addition, how might sonographers learn to become emotionally attuned to the needs of the women they scan when they have to give them bad news? Recent developments in brain imaging have shed some light on these phenomena, although the exact neural mechanisms underlying emotional contagion are still something of a mystery (Schulte-Ruther et al., 2007). One suggestion, that we shall explore more fully in Chapter 6, is that certain neurons in the brain can "mirror" the emotional affects of people that we interact with, and produce a gut feeling as to how we should respond based on prior experience in similar situations. The gut feelings of Gigerenzer (2007) are given a neurological basis by way of the somatic marker hypothesis (Damasio 2006). When the latter is combined with the theory of emotional contagion and recent mirror neuron research it culminates in a neurobiological model of empathy (Section 6.4.1), which is compatible with the differing philosophical perspectives on empathy pertaining to the medical and nursing professions.

3.5 A combined philosophical perspective on empathy

The opposing philosophical standpoints of the nursing and medical profession's views on empathy have been somewhat resolved by taking a pre-ontological perspective and relating it to recent neuroscientific research. The latter makes it clear that the

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existential perspective, which extols an ontology of human connection, provides a foundation for the cognitive dissociation evident in a Cartesian ontology; one which views human beings as innately separate. The existential connection between human beings can be visualised as something concrete (specifically in terms of the neural correlates of empathy (Section 6.4.1)) as opposed to something metaphysical. "Being-in-the-world" (Heidegger, 1927/1962), we might suggest, has found a scientific basis in the emotional connection between the human organism and its environment; one which exists prior to conscious awareness. In a similar respect, "being-with" has found a casual basis on a neurobiological level (Section 6.4.1).

Heidegger suggests that our true understanding of being is a form of involved background activity, on the basis of which everyday phenomena are made intelligible. He refers to this as our "fore-having" (1927/1962, pp.191). Emotional contagion may help us understand how activity, which occurs beneath our conscious level of awareness, can guide our interactions in social situations. This measurable background activity is the same activity which forms intuitions and guides tacit behaviour. Yet it does not suggest that we, as individuals, are at the mercy of biological forces beyond our control; that particular picture only arises when we see ourselves as no more than conscious entities. But we are more than that. We are enmeshed in a physical world. We are our bodies, brains and consciousnesses, where the latter is simply a window on the former, and entirely dependent on it. Bodily and neural activity is indeed the kind of background activity that represents a "fore-having." Perhaps it is also the kind of activity to which we should turn if we are to understand how genuine empathy might

occur during a real-time bad news transaction (discussed in Chapter 6).

3.6 Summary of the literature

The picture that the literature paints is one of opposing forces. There is a tension between the screening aspect of ultrasound and its social role which places the expectations of the sonographers and the women they scan at loggerheads. The latter expect a positive outcome, while the former search for a negative one. The medical profession, who introduced pregnant women to ultrasound screening, are of the view that the situation they created can be controlled. They are mistaken. Educating women about ultrasound screening does little to reduce its social connotations as the power of the cultural norms that surround it are too great. Yet, it was the medical profession who sowed the seeds from which the "norms" grew and blossomed. Health professionals may also be inadvertently reinforcing the norms which they seek to overcome, by steering women in the direction of the acceptance rather than the evaluation of prenatal testing. It would appear that the acceptance of prenatal ultrasound is certainly more of an implicitly guided "decision" than it is a personal "choice."

Women look forward to prenatal scans, they want to meet their baby, find out its sex and take home a picture. They seek reassurance. They expect it. Ultrasound is embedded deep within the social milieu of pregnancy and it appears that education alone is unlikely to remove it. This suggests that informed choice is nothing more than an illusion; one that providers strive to realise but merely perpetuate with idealistic notions which mask an undercurrent of self-interest. It would appear that the decision to accept ultrasound is made long before its true nature has been encountered. It is implicit. The culture of the west has made it a fact of life, and for the women who have been socialised into that culture it is as routine a part of pregnancy as giving birth itself.

Thoughts of bad news in pregnancy are generally avoided, so when bad news occurs it comes as a shock. In addition, the social aspects of the scan mean women rarely expect bad news, making its receipt more difficult. During a real-time scan the shock is two-fold: being experienced by both patient and sonographer. The arrival of bad news represents a critical moment during which normal routine breaks down and immediate action is required. For the sonographer, current advice does little to ameliorate the situation as its advocacy of preparation is impractical. In the critical moment, planning may best be replaced by tacit knowledge and intuition. Information giving, however, remains an important part of the process and one that may benefit from advance preparation and knowledge. Yet it is the way that the information is given that affects the patient's stress, and a good relationship with the sonographer can help to minimise it.

What constitutes a good relationship and what constitutes empathy? Certainly not a pre-determined catalogue of behaviours which can be selected at the news-giver's discretion and acted out. This is especially true in a real-time situation. As an ultrasound scan affords little time for any form of relationship to develop one must

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assume that something more implicit is at work. The literature suggests that the sensitivity a woman has to her situation during a scan (a situation which provides subtle clues to her baby's well-being) may be understood in terms of pre-conscious background processes. A neurobiological perspective (see section 6.4.1) will offer an insight into the mechanism behind such processes. As the sonographer is part of the shared situation, it is not unreasonable to assume that the way they break bad news is also influenced by subtle clues. Such clues may provide an insight into the woman's emotional disposition and facilitate genuine empathic understanding. This, however, would require a certain openness to the situation, rather than the pre-planned, scripted style advocated by current guidelines.

Breaking bad news in a genuinely empathic way has been associated with a better long term outcome for the recipient. This requires a blend of cognitive and intuitive abilities. Until now, the bulk of advice - dominated by research from the medical profession - has focused on the former. In addition, it has used cognitive processes to conceptualise empathy. Intuition has remained the preserve of nursing research and has been underpinned by existential philosophy. Although both perspectives appear disparate, they are in fact, two sides of the same coin. Indeed, information-giving requires thought, yet on the surface, so does empathy. Helping behaviour obviously has a "deliberate" element, but when this is taken in isolation it becomes disingenuous and ineffective. In order for empathy to be manifest as helping behaviour it must be underpinned by a degree of sensitivity and "resonance" with the recipient. From a neurobiological perspective (Section 6.4.1), intuition and rational behaviour become an extrapolation of the same underlying process. Cognition and intuition are not mutually exclusive, but depend on each other. Both deliberating over and remaining attuned to the situation are requisites for creating the "gut feeling" or somatic marker which may ultimately effect an appropriate response. Neither thinking, nor feeling alone will suffice. From this perspective we can see why the *experience* of breaking bad news is central to understanding how both intuition and cognition may be relevant. Sonographers' experiences of breaking bad news are unique in this respect.

Indeed, sonographers' experiences of breaking bad news will be the foundation of this research. But how can we study them? The cognitive route seems doomed to failure, as it would only serve to objectify what is essentially a highly involved process. The medical profession have attempted to do this with doctors and produced only an inflexible plan which conceptualises empathy as overt, objective behaviour. The existential path seems more appropriate. Until now, however, the latter has been associated with rather intangible concepts such as "being-with" or "being-attuned," which invoke an air of mystery. They are also at odds with the information processing framework which underpins breaking bad news research. On the other hand, as we shall see from a neurobiological perspective (Section 6.4.1), emotional resonance is indeed something tangible. As resonance is the casual basis of "being-with" or "being-attuned" it has made them tangible too. In addition, the neurobiological perspective will suggest that non-conscious emotional background processes can guide overt and

conscious decisions. An existential framework looks directly at these background processes.

We shall close this chapter with a simple argument for adopting an existential approach to this research. Current research has already looked at the phenomena that are obvious: information-giving, stress, anxiety and behaviour. It has taken these apparently isolated processes and tried to recombine them in a computer-like model of human interaction. A wider perspective on the literature suggest there is much more at work in the background. Existential phenomenology, particularly from a Heideggerian perspective, attends to this background through the interpretation of experience; the experiences of those who are directly involved when the more obvious phenomena are manifest. The true phenomena of phenomenology are the background processes. We will show that the background processes have causal correlates in the brain (Section 6.4.1), but it is doubtful whether researching these alone would help us understand more about the experience of breaking bad news. For this, a phenomenological approach seems more appropriate. Heidegger (1927/1962) said himself that phenomenology looks at "something that lies hidden, in contrast to that which proximally and for the most part does show itself; but at the same time it is something that belongs to what thus shows itself, and it belongs to it so essentially as to constitute its meaning and ground" (pp.59). This would indeed, seem a suitable method for unearthing what lies at the heart of breaking bad news in prenatal ultrasound. The next chapter will elucidate this proposition more fully.

CHAPTER 4 Methodology

4.1 Philosophical foundations

Questions of truth and knowledge are hot topics among qualitative researchers, and they are constantly being challenged to make their theoretical and epistemological positions clear in order to maintain some level of consistency and coherence throughout their projects (Holloway & Todres, 2003). Often, researchers do this by adopting some form of philosophical position (Willig, 2001), which may, in turn, raise several questions. Should, for example, a researcher's choice of methodology guide their philosophical position (Holloway & Todres, 2003), should their underlying philosophical beliefs guide their choice of methodology (Madill, Jordan & Shirley, 2000), or should their methodology and beliefs simply be consistent with each other (Koch, 1996)? The task is made no easier by the choice of epistemological positions available, ranging from "radical relativist" to "naive realist" (Willig 2001, pp.147).

From what Willig (2001) says, epistemological positions appear as the result of some foundational ontological assumption. Relativism and realism relate, accordingly, to whether reality, or in other words the existence of entities within the world, does or does not depend on us. It follows that the Cartesian subject/object distinction must be presupposed for this argument to have any basis. For instance, only if we are, at our most basic level, subjects contemplating objects, can we raise the question of how we can have any knowledge about them, and if our knowledge is true. Epistemology is, therefore, a derivative problem, and one that only exists as long as the Cartesian assumption is maintained. Why this assumption has arisen and how it can be

overcome will be looked at next.

4.1.1 The problem of dualism in phenomenology

Since Plato's fascination with theory, the dominant philosophical tradition has, according to Dreyfus (1991), developed a misunderstanding of what it is to be a human being. (By the dominant philosophical tradition Dreyfus is referring to philosophers "from Plato to Descartes, to Kant, to Edmund Husserl" (1991, pp.2).) This tradition, he suggests, has assumed that all human activity can be explained in abstract theoretical terms. Descartes (1637/2003), using Aristotle's notion of rationalism, tried to show that reason must be our most adequate source and test of knowledge (Lavine, 1989). He suggested that only the absolute truth could not be doubted, and so, began to methodically doubt everything else he believed. Finally, after doubting even the fact that he could think, Descartes concluded that conscious thought, because it included the capacity to doubt, must be the basis of his existence and, therefore, the foundation of absolute truth.

Descartes' proposition, as we suggested earlier (Section 3.2), amounted to nothing more than the division of a human being into a self-sufficient mind (*res cogitans*), on one hand, and a physical body as an extension in space (*res extensa*), on the other. This separation of mind and body, known appropriately as Cartesian dualism, also created the epistemological problem of how our internal knowledge could represent an external reality, and, therefore, led to the "correspondence theory of truth."

Husserl (1859-1938) attempted to address the problem of dualism by suggesting that consciousness was always conscious of something (Spiegelberg & Schuhmann, 1981), and so our minds must always be directed towards the objects of reality. This was achieved, he suggested, through the concept of *intentionality* (Magee, 2000, pp.256). Intentionality describes the ability of the mind to reach out from, or "transcend" consciousness in order to to connect with objects in the external world. In fact, it did not matter to Husserl whether there were real objects or not, because if the objects of his consciousness, i.e. the phenomena of his experiences, were indeed true representations of "reality" then he could simply "bracket" out the rest of the world and describe the intentional contents of his mind as indubitable evidence for their existence. Introspectively describing the objects of consciousness, without any reference to our everyday experience of the world, has subsequently become the formal conception of phenomenology.

Husserl's phenomenology was, in fact, the culmination of the Cartesian tradition as it had maintained the division between the "mind" and the "world." As psychology emerged from philosophy in the early part of the twentieth century Cartesianism flourished. The behaviourists studied the external manifestations of the "inner workings of the mind" until the cognitivists developed theories about them. Current breaking bad news literature, as we have seen, suggests that the mind is still perceived as the originator of meaning. As Leonard (1994) points out:

"The self of possession is the modern subject: autonomous, disengaged, disembodied,
rationally choosing his actions based on explicit, cognitively held principles and values."

Heidegger (1927/1962), by taking on the whole philosophical tradition, specifically Descartes, and by default Husserl, attempted to push the epistemological position back to an ontological one.

4.1.2 Heidegger's critique of Descartes

Heidegger (1927/1962) realised that our everyday experience of the world was not as an isolated subject perceiving an objective reality, but actually as "being-there" (Dasein) in the world amidst it, using it, concerned about it, and actively sharing it with other human beings. He said that "Dasein is its world existingly" (1927/1962, pp.416) which means that human beings *a r e* the situation in which they find themselves. As Dreyfus explains:

"Human being is an activity of being the situation in which coping can go on and things can be encountered... being-there is actively being taken up into the situation in which my directed activity is going on" (Magee, 2000, pp.263).

Heidegger (1927/1962) uses the example of an expert carpenter to illustrate how our primary way of encountering the world is by being absorbed in it. When the hammering is going well, he suggests, the carpenter does not even notice the hammer. He understands it primordially by coping with it in a "ready-to-hand" way (1927/1962, pp.98), which occurs prior to conscious thought or deliberation. The

hammer does its job by fading into the background, and the carpenter simply responds, in a pre-reflective way, to the affordances of the nails to be hit. This pre-reflective, "ready-to-hand" mode of being is, Heidegger suggests, how we encounter the world on a usual, everyday basis, which he calls our "average everydayness" (1927/1962, pp.38).

Earlier, when we illustrated the concept of flow (Section 2.5.2), in which prereflective skills allow mastery of a situation without the need for deliberative effort, we were essentially describing the ready-to-hand mode of being. This we related to the flow of technical expertise a sonographer exhibits during a routine ultrasound examination, the absorption of the pregnant woman in the social aspects of the scan, and, more importantly, the implicit background skill of emotional resonance. The latter, of course, was suggested as both the foundation of genuine empathic concern and the sensitivity of the woman to the changing emotional atmosphere of the scan.

To appreciate Heidegger's (1927/1962) argument against Descartes we have to see that Descartes only had one understanding of being, namely that of substances. His ontology stemmed from the assumption that all beings have a substantive nature, even human beings, and, as such, can be defined in terms of occurrent, or as Heidegger put it "present-at-hand" (1927/1962, pp.48) isolable properties. Heidegger, however, suggested that human beings are self-interpreting and can define themselves in any number of ways. Their "essence," he suggested was not that of substantiality, but that of "existence" (1927/1962, pp.67).

Heidegger had thus defined three modes of being: "ready-to-hand" (for equipment), "present-at-hand" (for substances), and "existence" (for human beings). "Equipment" (translated from the word "Zeug" in Being and Time (1927/1962, pp.97)) actually relates to the interconnected referential whole of "stuff" that human beings use on an average daily basis. We will see later on, how this referential whole is crucial to the way we define ourselves.

Heidegger (1927/1962) argues that Descartes had overlooked the phenomenon of "being-in-the-world" by starting his investigations from a subjective, detached, theoretical viewpoint. This is rather similar to the way that medical research into breaking bad news began with isolated cognitive constructs and rule following. Such a viewpoint occurs when our "ready-to-hand" way of coping ceases due to some disturbance, and becomes "unready-to-hand" (1927/1962, pp.103). The hammer that the carpenter is using, for example, may break. Once he stops using the hammer, the carpenter can reflect on it in its "present-at-hand" state - i.e. as a wooden shank with a metal blob attached (Dreyfus, 1991). Although knowledge of these occurrent properties may allow the hammer to be fixed, or alternatively be discarded, it would in no way capture what it meant to "be" a hammer; the same way that defining human beings in a "present-at-hand" way, fails to capture what it means to "be" a human being, or in other words, "exist." Adopting a detached, theoretical attitude amounts to what Heidegger calls "de-worlding," and one could argue that this is just what Descartes had achieved prior to writing the "Meditations," namely, by locking himself away "in a stove heated room" (Hatfield, 2003, pp.10). De-worlding also describes

Husserl's practice of "bracketing" (Moran, 2000).

The unready-to-hand is a concept we are already familiar with. It represents the breakdown in flow during a routine prenatal scan, when an abnormality is detected (discussed in Section 2.5.2). The scan itself becomes unready-to-hand. For the woman this occurs when she senses the atmosphere change from social to clinical and detached (Baillie et al., 2000), and for the sonographer when the scan changes from a technically routine exercise to a more investigative process – for example, when a nuchal translucency measurement has to be categorised outside of normal limits (NHSFASP, 2010b). The unready-to-hand mode of being is, therefore, heralded by the "critical moment" that a normal scan changes into a bad news scan (Detraux et al., 1998).

This phenomenological investigation is aimed at sonographers' experiences; primarily those that relate to the "critical moment" when their situation moves from a ready-tohand mode of being to an unready-to-hand mode. Sonographers will obviously relate to this from a personal perspective, but, as we have seen, the situation they face during a bad news scan is shared ontologically with their patient by the very nature of them both being-in-the-world. To this end we must retain the shared aspect of the experience. Questions about what were significant or meaningful about a particular bad news scan may ultimately be addressed, yet such concepts are generally associated with introspection and retain properties unique to the individual. To be true to Heidegger's phenomenological method we must attempt to rescue them from solipsism and ground them in the fundamentally shared world from which the experience arose in the first instance.

4.1.3 Significance, meaning and mood

Heidegger's (1927/1962) concept of "world" ties together two primary modes of being, namely those of "existence" and "readiness-to-hand." Only human beings have a world, or *are* their world, he suggests, because they disclose a meaningful space in which things can make sense and matter to them. Everything that can be defined in terms of "present-at-hand" facts goes to make up the occurrent "universe" (Dreyfus, 1991).

"Significance" refers to the structure of the human world, and encompasses the holistic way our shared skills and practices (gained during our cultural socialisation) mesh with the referential whole of equipment that we use on a daily basis. What we do, in other words, always *signifies* some way in which we define ourselves. For example, when the carpenter hammers with his hammer, it is in order to make a house, for the sake of being a home builder, or family provider. We could also say that a sonographer scans a patient *with* the ultrasound machine, *in order to* detect foetal abnormalities, *for the sake of* being a competent professional. Alternatively, the same sonographer may scan the patient in order to show them a healthy baby for the sake of being a caring professional. We have already discussed how these two objectives may clash, when we pointed out that a sense of professional pride in prenatal ultrasound inevitably means causing a patient distress, something the caring professions generally

hope to avoid (Simpson & Bor, 2001). The "with-which," "in-order-to," and "for-thesake-of-which" are Heidegger's phrases for pointing out the relationships that exist within the structure of the world.

"In its familiarity with these relationships, Dasein 'signifies' to itself: in a primordial manner it gives itself both its being and its *potentiality-for-being* as something which is to be understood as being-in-the-world... The relational totality of this signifying we call '*significance*'" (1927/1962, pp.120).

Here "potentiality" refers to the way we always project forward into new possibilities from an already established understanding of our lives. Heidegger (1927/1962) describes human-being as "ahead-of-itself-in-already-being-in-a-world" (pp.236) which indicates that we are essentially the culmination of the past, present and future aspects of temporality. Temporality, he suggests, is the meaning of our existence, and the structure of the latter he defines as "Care [Sorge]" (1927/1962, pp.237).

Meaning is also something shared, as opposed to being traditionally conceptualised as a subjective phenomenon. Heidegger says that meaning is a shared existential structure within which things maintain some form of intelligibility, i.e. make sense.

"Meaning is the 'upon which' of a projection in terms of which something becomes intelligible as something; it gets its structure from a fore-having, a fore-sight, and a fore-conception" (1927/1962, pp.193).

This definition indicates that: (1) we always operate from within some background understanding, namely our "fore-having" (e.g. we understand hammers by hammering with them, not in terms of their isolable properties); (2) we always see things from some perspective (corresponding to our "fore-sight"); and (3) we never move forward into new possibilities without some vague understanding of how things will turn out (our "fore-conception"). Such a structure is important when considering any interpretive phenomenological method, as it suggests that prior conceptions and the circularity of the process must be embraced instead of avoided. The latter is expanded upon in Section 4.1.6.

Our "situation," which Heidegger calls our "there" (1927/1962, pp.171), is, he suggests, disclosed to us by two equiprimordial sources: *understanding* and *mood*. *Primordial understanding* is the way in which we always press forward into new possibilities. It is the way our activity in any situation is always directed towards some "for-the-sake-of-which" or life plan. *Primary understanding* simply refers to our ability to cope, in a pre-reflective manner, with the people and things we encounter within the situation. The latter is a form of common sense "know-how." Mood, on the other hand, discloses the situation in terms of what matters to us. In Heidegger's hands, moods are not something "inner" which we project onto the world, but they are something essentially shared, and result from our attunement to particular aspects of the shared situation. The neurobiological model of empathy (Section 6.4.1) offers a scientific basis for this attunement.

"Dasein's openness to the world is constituted existentially by the attunement of a mood... a mood implies a disclosive submission to the world, out of which we can encounter something that matters to us" (1927/1962, pp.175-176).

As we have mention several times, pregnant women can be attuned to the fact that the mood of the scan can change from "social" to "clinical and detached" following bad news (Baillie et al. 2000). Salander et al. (2002) also noticed that patients receiving bad news often complained that the situation had an overly pessimistic "atmosphere," and how receiving the same information in different hospitals had left them in different moods. These phenomena reflect Heidegger's notion that it is situations which have moods and, like atmospheres, these moods can be shared, colouring everything we do once we enter into them.

"Moods are not side effects; but are something which in advance determine our being with one another. It seems as though a mood is in each case already there, so to speak, like an atmosphere in which we first immerse ourselves in each case and which then attunes us through and through" (Heidegger, 1929/1995, pp.67).

Heidegger has gone to great lengths to emphasise the point that being-in-the-world is more primordial to, and more phenomenologically relevant for understanding human activity, than the Cartesian notion of the person as an isolated subject. In doing so he has provided existential interpretations of taken-for-granted concepts such as significance, meaning and mood which have previously been associated with subjective phenomena. As such, this new perspective must be kept in mind when discussing Heidegger's phenomenological method.

4.1.4 Phenomenology as ontology

We have seen that the primary task of phenomenology is to illuminate what lies hidden, as opposed to what already seems obvious. As Heidegger says, "... because the phenomena are proximally and for the most part not given, there is need for phenomenology" (1927/1962, pp.60). In the literature review we identified empathy as something which relies on background processes - whether you describe them as neural or intuitive - as well as possessing a more superficial cognitive element. Genuine empathy is obviously something shared, but difficult to explain. This is, we might suggest, why phenomenology may be the best way to understand it. As Dreyfus (1991) points out, "In Heidegger's hands phenomenology becomes a way of letting something shared that can never be totally articulated and for which there can be no indubitable evidence show itself" (pp.30).

Hermeneutic, or interpretive, phenomenology, as outlined by Heidegger, is an interpretation of human beings essentially self-interpreting, which in turn appears to suggest that interpretation is the proper method for studying human activity. The question is: how can a researcher investigate a shared phenomenon by analysing what would appear to be the subjective accounts of isolated individuals? One way may be to keep phenomenology at an *ontological* level, investigating human existence as a fundamental mode of being-in-the-world and being-with others. Heidegger suggested that developing an ontology of being could only be achieved through phenomenology.

"Only as phenomenology is ontology possible. In the phenomenological conception of 'phenomenon' what one has in mind as that which shows itself is the being of entities, its meaning, its modifications and derivatives" (1927/1962, pp.61).

Similarly we can suggest that staying at the ontological level, instead of climbing to unnecessary epistemological heights, will allow us to accept the idea that any assertion, in the form of a descriptive statement, simply articulates some aspect of the referential whole of significance that goes to make up the world. When participants describe their experiences they are disclosing something about the shared, meaningful world. Heidegger said that when an assertion is "true" it simply uncovers some aspect of the world as it really is.

"The being-true (truth) of the assertion must be understood as being-uncovering. Thus truth has by no means the structure of an agreement between knowing and the object in the sense of a likening of one entity (the subject) to another (the object). Being-true, as being-uncovering, is in turn ontologically possible only on the basis of being-in-the-world" (Heidegger 1927/1962, pp.261).

Even if we take ontology as our starting point, we cannot ignore the fact that participants will be reflecting on their experiences, and that conscious thought must be involved. Our next task will be to see how we can avoid falling into Cartesianism and maintain the connection between what an individual says and their "being-in-the-world."

4.1.5 Overcoming consciousness through discourse

To Heidegger, discourse is more than just language, as it is a way of articulating aspects of the shared world. For example, when our carpenter puts down his broken hammer, he is disclosing some aspect of the significance structure. He is articulating not only the fact that the hammer belongs to a referential whole of equipment (nails, wood, houses etc.) for which it now appears to be unsuitable, but that this equipment is significant in that it allows him to project towards an understanding of his being, i.e. towards his for-the-sake-of-which. Heidegger (1927/1962) says that what is articulated in discourse is meaning, which, as we have seen, is the existential structure in which things maintain their intelligibility.

"The totality of significations of intelligibility is *put into words*. To significations words accrue. But word-things do not get supplied with significations" (pp.204).

The carpenter could say what he was doing, but only on the basis of it having already been articulated. The same could be said of the critical moment during a bad news scan, where the breakdown in the flow of absorbed activity, and the changing atmosphere of the situation, articulates not only the detection of an abnormality, but that it was part of the sonographer's *for-the-sake-of-which* to detect it. When sonographers describe the critical moment they are describing something which has already been articulated in the involved activity of shared situation. This implies that words are not merely representations of subjective mental content but arise from our meaningful activity in the world. Discourse, as the disclosing of the articulations

within the structure of significance, is expressed as language, and by communicating through language "being-with" gets shared. As Heidegger (1927/1962) says,

"Through it [communication] a mood [Mitbefindlichkeit] gets "shared", and so does the understanding of being-with. Communication is never anything like a conveying of experiences, such as opinions or wishes, from the interior of one subject into the interior of another... In discourse being-with becomes 'explicitly' *shared*" (pp.205).

Being-with is shared because, in addition to the familiar background practices which constitute our understanding, moods are also shared, and, as we have seen, it is our moods which determine what matters in a given situation. As the researcher listens to the participant discuss their experiences, they do not simply perceive a stream of words which represent the contents of the participant's conscious mind, but, as Heidegger suggests, they are there with them in what they are talking about.

"Listening to... is Dasein's existential way of being-open as being-with for others... when we are explicitly hearing the discourse of another, we proximally understand what is said, or - to put it more exactly - we are already with him, in advance, alongside the entity which the discourse is about" (1927/1962, pp.206-7).

The interview process during a phenomenological investigation, therefore, taps into the experiences of the participant directly and reaches to the heart of the situation from which they arose. Through being-with it is not only a description of the past event that gets shared, but also its meaning. This is communicated by revealing what mattered to the participant as the event unfolded.

4.1.6 Interpretation and the hermeneutic circle

This investigation is primarily an interpretation of sonographers' experiences. However, interpretation is also the way in which we define ourselves by our existence. It is a necessary part of our existential structure as "dasein." When we consider the interpretation of a sonographer's experience, we must not think of that experience as a fixed, historical point in time or as a factual object that can be analysed in terms of isolable properties. Rather, we must see it as a constantly evolving interpretation of how that person defines themselves through their engagement with others, which is made possible by "being-with" them in the shared situation of a prenatal scan. This is a reflection of being-in-the-world in general, which is something we are all familiar with. The interpretation of the sonographer's experience must therefore be undertaken from a shared understanding of what it means to be a self-interpreting being in a situation with others. Both the interviewer's and the interviewee's background familiarity with the world should allow this to happen. The main point to note is that interpretations must be carried out from a position of some pre-established understanding of the phenomenon at hand, whether that be the world in general or the world of the sonographer. This necessarily gives the interpretation a circular nature.

It is through interpretation that we reveal the structure of significance, which is a measure of how our actions define our existence. We can point out aspects of the significance structure by making meaningful assertions. In other words, assertions can

be made about particular phenomena on the background of our fore-understanding (our fore-having, fore-sight and fore-conception). Assertions, as we have seen, are "true" when they disclose something shared. The interpretation of human beings must, as we said, operate from within a background understanding (our pre-ontological understanding of being) as we are always situated in a meaningful world. Interpretation is merely the articulation of this background.

"In interpreting, we do not, so to speak, throw a 'signification' over some naked thing which is present-at-hand, we do not stick a value on it; but when something within-the-world is encountered as such, the thing in question already has an involvement which is disclosed in our understanding of the world, and this involvement is one which gets laid out by the interpretation" (Heidegger 1927/1962, pp.190-1).

Heidegger thus proposes the idea that any interpretative investigation must be circular, i.e. fall within a "hermeneutic circle."

"The 'circle' in understanding belongs to the structure of meaning, and the latter is rooted in the existential constitution of Dasein – that is, in the understanding which interprets" (Heidegger, 1927/1962, pp.195).

Dreyfus (1991) makes an important point, regarding interpretation, about the difference between the hermeneutic circle in theoretical explanation and that involved in interpretive understanding. This is relevant to Heidegger's (1927/1962) statement that we should not avoid the hermeneutic circle, but "come into it in the right way"

(pp.195) because it represents the very structure of human existence. Dreyfus says:

"We must show that studying human beings as self-interpreting beings requires interpretation within *the full hermeneutic circle* of shared significance, whereas to have a science of any object including human beings as objects requires only the circularity of working within a theoretical projection" (1991, pp.203).

The study of empathy as emotional labour (Larson & Yao, 2005) is a striking example of studying people as objects, where empathy is ultimately reduced to a set of behaviours to be acted out (Dow et al., 2007). Actions such as sitting close, maintaining eye contact and touch are objective features which correlate with being empathic, and so can be learned and applied to the breaking bad news situation. However, rules for how close one should sit, the length of eye contact, and the frequency of touch cannot be made, as each depends upon the context and meaning of the given situation. In addition, patients appear to know when touch is deliberate or spontaneous (Randall & Wearn, 2005). It would be a mistake, therefore, to look for ways in which to ground sonographers' experiences of breaking bad news in rules which could be applied to a general situation. As this is an exploratory study we should, instead, look for aspects of the existential structure of a bad news scan which might be articulated through the significance it holds for each individual participant. Just as the existential structure of dasein can be traced backed to a fundamental ontology of being, which makes sense in terms of temporality, so might the ontological basis of a prenatal scan, if revealed, highlight a fundamental similarity between sonographers' accounts of breaking bad news. Rather than rules distilled from

experience, we are searching for the very foundation of the experience itself.

4.1.7 A methodological method

We concluded at the end of Chapter 3 that a philosophical position which highlights the importance of pre-reflective background phenomena would provide a suitable foundation for studying the empathic communication of bad news between sonographer and patient. Nursing research pointed the way to a phenomenological method employing Heideggerian philosophy (Benner, 1994). This was not just an alternative to the more popular cognitivist methods for studying a bad news interaction, but provided an ontological foundation from which the latter could arise.

Heideggerian, or "existential" phenomenology attends to the background of everyday skilled comportment guiding human interactions. When our skill for coping with those interactions breaks down - such as when bad news has to be communicated - certain aspects are called to our attention. These aspects take the form of phenomena which can be studied and analysed, and this can take us in one of two directions. The first is to take the phenomena in isolation, develop theories about them and endeavour to ground their existence in some form of truth or knowledge. One could suggest that this was the route taken by the cognitive model for studying stress (one aspect of breaking bad news) in terms of appraisal and coping mechanisms. The second direction is to return to the background itself and interpret it in terms of the situational aspects (i.e. the phenomena) which arose when it broke down. These are the phenomena encapsulated by experience, and only those who lived through the

experience can bring us closer to this background. By describing how they coped with a difficult situation, a sonographer may highlight how certain background skills (necessary for coping with a "normal" situation) started to break down, were subsequently called to their attention and then modified. One could then ask whether the modification led to success or failure. In this second, and we could argue, more fundamental direction, the interpretation of experience becomes the primary method of analysis.

A choice of method for the task of illuminating the "background" of breaking bad news in prenatal ultrasound should, therefore, enter into the interpretive process from within the hermeneutic circle. Why? Because what it aims to reveal is the basic skilled comportment guiding human interactions. Giving unwanted information empathically requires, in addition to cognitive, deliberative judgement, a skill set based on tacit, intuitive know-how. It requires a familiarity with social situations and an attunement to the fundamental connection between individuals that has been described in terms of "being-with." Familiarity is developed as we become socialised, from childhood, into a particular culture with its specific norms and practices. Attunement, on the other hand, is something that every human being possesses and is something that can never be "bracketed" out by the formal phenomenological method.

Any investigation has to be guided by a prior understanding, which Heidegger (1927/1962) suggests, is characterised by the threefold structure of *fore-having, fore-sight* and *fore-conception*. This structure, according to Heidegger, is what allows us to

make the world intelligible and is, therefore, considered to be the formal structure of *meaning*. Speaking as a researcher, my own skilled comportment forms part of my fore-having, and provides the background for my interpretations. When considering the problem of breaking bad news, my fore-sight has been directed to the problem that sonographers face during a routine prenatal ultrasound scan. My initial foreconception has been laid out in the previous chapters, and it pushes me forward in the understanding that answers may be found in the background processes underpinning the bad news interaction, rather than in the cognitive psychological analysis of those involved in it. The process of investigation must be circular as my fore-having can never be dispensed with but only modified in terms of my fore-sight and foreconception. The latter develop as the phenomena are engaged with and interpretations are made. As my fore-having changes so will my fore-sight and fore-conception. This iterative process continues until a final interpretation is reached. This interpretation will only be final in the sense that it best fits the phenomena at hand, rather than providing a definitive truth regarding the situation of breaking bad news in prenatal ultrasound.

Considering the above points, we must look for a method that encapsulates a philosophical methodology that is: (a) phenomenological (i.e. concerned with lived experience); (b) deals with interpretation from within the hermeneutic circle (i.e. does not bracket out prior knowledge or skill and does not ultimately seek objective truth); and (c) concerned with meaning, albeit as the shared formal structure in which the world becomes intelligible or "makes sense" to both the participants and researcher

(i.e. me).

The majority of phenomenological research according to Koch (1995) purports to follow either a Husserlian (bracketing) approach or Heideggerian (inclusive, circular) approach, but rarely stays true to either one. What transpires is a rather vague thematic analysis of experiential phenomena, such as that described by Braun & Clarke (2006). In addition, Husserlian phenomenology has inspired a grounded theory approach to qualitative analysis, where prior knowledge is avoided and a form of objective truth developed from the ground up (Willig, 2001). In the field of health psychology, a method called Interpretative Phenomenological Analysis (IPA), is currently gaining in popularity as a flexible way of studying lived experience (Brocki & Wearden, 2006). IPA adopts, at its heart, a Heideggerian approach, embracing the circular nature of interpretation and acknowledging the importance of a researcher's prior conceptions. On the surface, IPA appears to reflect the philosophical underpinnings of this project and provide a method compatible with the methodology outlined in this chapter so far. For now, however, we shall, in true Heideggerian style, merely "formally indicate" it as a method of choice, pending a critical evaluation of its own philosphical underpinnings which will be carried out in the following section. Prior to our evaluation of IPA, however, we shall briefly review the works of some other notable authors who have made a contribution to the broad phenomenological tradition since its inception with Husserl and Heidegger (Spiegelberg & Schuhmann, 1981).

4.1.7.1 A note on the broader phenomenological tradition

Phenomenological researchers appear to be guided by the idea that, although individuals may experience a particular phenomenon in different ways, the meanings they ascribe to it, and their rich descriptions of it should elucidate something of its basic structure or essence (Giorgio & Giorgio, 2003). One must be careful, however, and clarify whether this "essence" is ascribed the character of a substance (e.g. as a property of the Cartesian/Husserlian transcendental subject) or an activity (e.g. resulting from the existential comportment of the Heideggerian dasein within the world). The difference is important as it reflects the fundamental ontological assumptions of the researcher: are they a traditional Cartesian, or an existentialist? We have already argued for the latter position in this particular project.

Phenomenology often emphasises the existence of the lifeworld; that realm in which everyday, taken-for-granted, human activity occurs (Spiegelberg & Schuhmann, 1981). Ashworth (2003) suggests that although people's lived experiences of their situation may be quite specific, their lifeworlds share universal features such as "temporality, spatiality, subjective embodiment, intersubjectivity, selfhood, personal project and discursiveness" (pp.23). Here we can already see a mixture of Husserlian (subjective embodiment and intersubjectivity) and Heideggerian (temporality, spatiality and project) concepts. Koch (1995) suggests that much of the phenomenology involved in healthcare related research revolves around Colaizzi's (1978) method, incorporating the thematic analysis of descriptive experience. Colaizzi, himself, comes close to illuminating something of the experience the lifeworld that appeared to combine the differing ontologies of Husserl and Heidegger. He points out that such experience is "... (a) objectively real for myself and others, (b) not an internal state but a mode of presence to the world, (c) a mode of world presence that is existentially significant" (1978, pp.52). In other words, the reflective aspect of experience *can* appear objective because it inevitably stems from a memory of that experience, yet the experience itself originated from a direct engagement with the world which, in turn, is how one defines oneself in terms of one's existence.

Alfred Schutz made phenomenology more accessible by relating it to the social world and highlighting the transition between direct and indirect experience. Schutz also demarcated levels of experience, from passive experience, to spontaneous activity to deliberately planned and projected activity (Barber, 2010). This is relevant for our current project as it highlights the fact that experience can have both a conscious element (such as following a pre-determined plan like SPIKES), and a non-conscious element (e.g. passive emotional contagion or spontaneous intuitive action). Schutz also subscribes to the concept of the lifeworld.

Schutz & Luckmann (1973) describe the lifeworld as the taken-for-granted, prescientific realm into which we are born and within which we interact with others. This reflects Heidegger's (1927/1962) idea that being-in-the-world is understood by dasein in a pre-ontological (i.e. unthematised, pre-theoretical) way, and that the world of dasein is primarily a with-word (*mitwelt*) (pp.155). Schutz & Luckmann, however, describe the world as appearing in "coherent arrangements of well-circumscribed

objects having determinate properties" (pp.4). This, unfortunately, infers a substance ontology. Heidegger (1985) describes the world more appropriately as a "closed referential whole" (pp.187) from which individual objects can stand out. The latter, as we have argued previously, is a phenomenologically more fundamental view of the way human beings are primarily absorbed in their world, unlike that effected by Schutz & Luckmann (1973) which appears to maintain the Cartesian subject/object distinction reminiscent of Husserl's transcendental phenomenology.

There is also the question of meaning to be considered. As far as meaning is concerned, Schutz & Luckmann (1973) suggest that the lifeworld presents itself "as a subjective meaning-context; it appears meaningful in the explicative acts of my consciousness" (pp.15). Once again the influence of Husserl's transcendental subject is apparent. As such, Schutz and Luckmann's position is almost the reverse of Heidegger's proposition, i.e. that meaning is a shared existential structure constituted by dasein's fore-understanding. Heidegger stresses the point that human beings will not find meaning by introspecting and examining inner mental content or conscious acts. Meaning presents itself as the understanding of being, which occurs during our active engagement with the entities in the world which are to be understood. This, Heidegger (1927/1962) suggests, will only occur when Dasein "looks away from 'Experiences' [inner experiences] and the 'centre of its acts' [mental acts], or does not yet see them at all" (pp.155). Being, in other words, is manifest in action rather than introspection. The lifeworld, therefore, should not be confined to a "subjective meaning context."

Despite the aforementioned Cartesian overtones, Schutz & Luckmann (1973) do emphasise the important point that, in the natural attitude, human beings simply "know' what it is another is doing" (1973, pp.15), which suggests an implicit understanding of others reminiscent of Heidegger's being-with. They also suggest that this understanding is built on past experience, which, in turn, reflects Heidegger's fore-having. The major philosophical difference between Schutz & Luckmann and Heidegger, however, is that for Schutz & Luckmann, understanding others (and for that matter, oneself) is grounded in the subjective experience of motivated and purposeful behaviour. Heidegger, instead, places understanding at a more primordial level, i.e. at the level of a pre-reflective engagement with both the world (being-in) and others (being-with). It appears that Schutz & Luckmann try to build an understanding of others by piecing together facts from a de-worlded perspective:

"... one accepts the existence of other men as taken for granted. The human bodies that I can find in my surrounding world are for me obviously endowed with consciousness; that is, in principle, they are similar to mine" (Schutz & Luckmann, 1973, pp.59).

This creates the problem that other people's experiences, which are locked inside the consciousnesses with which their separate bodies are endowed, can never be shared *directly*. Rather, such experiences must be mediated by conscious evaluation:

"I grasp my fellow-man's flow of lived experiences only 'mediately,' in that I explicate his movements, his expression, his communications as indications of the subjectively meaningful experiences of an alter ego" (Schutz & Luckmann, 1973, pp.63-64).

This is coherent with the theory of mind view of empathy which we encountered in the literature review. It is also the basis of the art of empathic acting developed by Dow et al. (2007), which uses facial expression, body posture etc. to define empathy and reciprocate it. Schutz & Luckmann (1973), however, describe this form of interaction as a "we-relation" (pp.65) which is ontologically different from "beingwith." From a Heideggerian perspective, Schutz & Luckmann's "we-relation" begins only after being-with has entered into a deficient or indifferent mode. This may occur, for example, when we believe someone is keeping a secret from us and have to work out what they might be hiding.

Despite the suggestion that human beings have a tacit understanding of each other, Schutz & Luckmann suggest that observing particular "symptoms" of their inner conscious processes is how knowledge of others is gained:

"I can apprehend the processes in his [the other's] consciousness not only by means of what he deliberately shares with me, but also through observation and interpretation of his movements, his facial expressions, his gestures, the rhythm and intonation of his speech etc." (1973, pp.66).

They refer to this process of observation and interpretation as "tuning into" the other person. On the surface this would appear compatible with the notion of emotional resonance, but, once again, we must point out that Schutz & Luckmann's "tuning into" is ontologically different from "being-attuned" (Stimmung) (Heidegger, 1927/1962, pp.172) as it requires conscious mediation. Schutz & Luckmann, in fact, say that

experiencing others is tantamount to "the experience of a typical actor on the stage of the social world" (1973, pp.67). Being attuned, on the other hand, represents a more pre-reflective (background) process.

Although the social phenomenology of Alfred Schutz would appear sympathetic, in some respects, to a Heideggerian ontological stance, (Schutz (1932/1967) even borrowing several terms from Heidegger in his analysis of the social world, although often changing the original meaning) one cannot escape the fact that Schutz is too much of a Husserlian to go beyond the confines of transcendental subjectivity and acknowledge the broader aspects of being-in-the-world as such. As Overgaard & Zahavi (2009), point out:

"Relying on Husserl's analyses of intentionality and the life-world, Schutz accordingly claims that the social world reveals and manifests itself in various intentional experiences. Its meaningfulness is constituted by subjects..." (pp.8).

On a positive note, Schutz & Luckmann (1973) suggest that actions occur between the individual subject and his/her *predecessors, contemporaries* and *successors* (which is basically saying that one's actions are always in terms of others, and map onto a three-fold temporal structure). However, "subjects" as we suggested earlier arise from Das Man, which embodies cultural norms and practices, has its own existence, and hence its own three-fold temporal structure (like dasein). When we act through Das Man (by responding to the general situation as "one" might respond) we are, rather than acting as individual subjects with intersubjective connections, acting as "one" might act and,

therefore, already with others within the same three-fold temporal structure. Schutz 7 Luckmann, it appears, by focusing on the subject, start from a perspective which is already detached from an absorbed being-in-the-world.

Bourdieu (1989) highlights the subjectivist nature of Schutz's method: "It is no doubt in the work of Alfred Schutz and the ethnomethodologists," he says, "that one would find the purest expression of the *subjectivist* vision" (pp.15). This vision, according to Bourdieu, is in opposition to the *objectivist* vision employed by the likes of Durkheim (1897/1970), who suggests that social life should be explained by the deep causes which lie outside of consciousness. Rather than decry either Schutz's or Durkheim's views individually, Bourdieu illustrates the pitfalls of maintaining what he calls a "substantialist" viewpoint, reminiscent of the Cartesian substance ontology described earlier. Bourdieu suggests, therefore, that the "artificial opposition that is thus created between structures and representations" (1989, pp.15) must be transcended. In Bourdieu's eyes, Durkheim deals in *structures*, while Schutz deals in *representations*.

"On the one hand, the objective structures that the sociologist constructs, in the objectivist moment, by setting aside the subjective representations of the agents, form the basis for these representations and constitute the structural constraints that bear upon interactions; but on the other hand these representations must also be taken into consideration, particularly if one wants to account for the daily struggles, individual and collective, which purport to transform or preserve these structures" (Bourdieu, 1989, pp.15).

Bourdieu's (1989) view reflects Heidegger's notion of Das Man and the norms it

propagates within a particular culture; norms which initially mould individuals to respond to the general situation as "one" might respond, and therein maintain a shared intelligibility of the world. Of course, individuals may eventually learn to respond to the unique situation by acting authentically and possibly modify the norms (structures) in the process. Individual perspectives obviously exist, but these are perspectives on a shared world, not merely "representations" of it. Representations can indeed arise, albeit reflectively, and they may lead to either true or false beliefs about the world. But, as Bourdieu implies, the structures of the social world (i.e. Das Man and cultural norms) exist prior to and are constitutive of such representations. Representations occur within consciousness, but that does not imply that the causes that lie outside of consciousness, as Durkheim (1897/1970) suggests, should take the form of substantive objects. They may simply be the normal, everyday modes of comportment that individuals adopt towards the world and each other. Once the substance ontology is dismissed, then the subject/object distinction also disappears.

In conclusion, the broader phenomenological tradition reflects a rather confusing array of ontological assumptions which are often contradictory. This is partly due to the influence of Husserl's transcendental subjectivity in much of the sociological literature. In order to avoid the pitfalls of trying to reconcile subjectivity with being-in-the-world in general, we shall, instead, endeavour to refine our chosen method (IPA) in terms of Heidegger's (1927/1962) more fundamental ontology.

4.2 Method: Interpretative Phenomenological Analysis (IPA)4.2.1 Introduction

IPA is a recently developed and rapidly growing qualitative research approach, committed to how people make sense of major life experiences (Smith, Flowers & Larkin, 2009). It is phenomenological in the sense that it explores the experience in its own terms. This, according to Smith and colleagues, means that IPA researchers are especially interested in what happens when the "everyday flow of lived experience takes on particular significance for people" (pp.1). In the present study, the everyday experience of performing routine prenatal ultrasound examinations has become significant in light of the difficulties faced by sonographers when they have to break bad news. The latter is a phenomenon which has generated recent interest from organisations hoping to implement suitable training programmes (NHSFASP, 2010a).

The recruitment of sonographers into this study is a way of eliciting what it means for them to break bad news, a phenomenon juxtaposed against the more general experience of routine prenatal scanning. This takes us to IPA's second theoretical axis. IPA shares the view that human beings are sense-making creatures and that the accounts they provide of their experiences will reflect their attempts to make sense of those experiences. IPA is, therefore, both phenomenological and interpretative. It is informed by Hermeneutics, the theory of interpretation, and as we shall see the interpretative aspect is extended to the researcher's position within the project.

4.2.2 IPA and hermeneutics

Heidegger's hermeneutic circle is central to the IPA method, and Smith (2004) suggests that a double hermeneutic is in operation during the research process. His idea is that of the research participant trying to make sense of their own experience, while the researcher is trying to make sense of what they tell them about it. The researcher, in effect, is interpreting an interpretation. Smith, Flowers & Larkin (2009) agree with Heidegger that the interpretation cannot proceed from a purely objective standpoint, evident in his concept of the hermeneutic circle. Getting into the circle the right way, the authors suggest, must be guided by a level of familiarity with the subject matter. Traditional phenomenology, on the other hand, prescribes the opposite: that prior knowledge should be avoided.

Smith, Flowers & Larkin (2009) do acknowledge Husserl's idea of *bracketing*, but apply it to the more general preconceptions which might be held about a particular phenomenon. They suggest that a researcher should approach the latter armed with knowledge about it, but not let that knowledge force the interpretation into an already popular misconception. The authors use Heidegger's (1927/1962) statement about not letting our prior understanding "be presented to us by fancies and popular misconceptions" (pp.195) as justification. Heidegger, of course, was referring to the philosophical tradition at the time and directing this criticism at the popular dualist philosophy propagated by Descartes. Engaging with the literature before studying a particular phenomenon may be one way to identify popular conceptions (or misconceptions) about it, but any interpretation, as Heidegger suggests, must start

with a level of familiarity about what is being studied. This, as we have seen is our *fore-having*. It also has to be done from a particular perspective (*fore-sight*), and have a tentative conclusion (*fore-conception*).

At an ontological level, the self-interpreting nature of human beings hinges on the aforementioned three-fold structure, the elements of which are mapped directly onto the three elements of temporality; namely *past, present* and *future*. Heidegger suggests that human-being, i.e. existence, is stretched across time, always projecting into a future from some past and doing so with a level of present absorption in the immediate situation. From Heidegger's point of view this ontological level of self-interpretation forms the basis of all other interpretations. It is also circular, as by the time we start to interpret ourselves in terms of some future understanding (projection), we are already coping directly with the immediate world (falling) and are doing so from an already developed perspective (throwness). Our throwness is something we can never get behind, as it is developed from the moment we are born and constitutes a familiarity with the world which leaves us always "already in" some situation (Dreyfus, 1991). It can only be modified through our immediate directed activity which always projects towards a future self-interpretation.

When interpretations are made about a particular phenomenon something of its meaning is revealed. Heidegger stresses the point that the meaning was already there in the background, but it was so familiar to us that it remained concealed. This was to rally against the common assumption at the time that meaning was an internal, mental predicate attached to an otherwise unknowable, external object. Heidegger's suggestion that meaning is a formal structure on the basis of which things become intelligible, places it firmly in the shared world as opposed to the individual's mind. It also has a three-fold temporal structure comprising of the aforementioned fore-having, fore-sight and fore-conception.

Smith, Flowers & Larkin (2009) suggest that in the second hermeneutic phase, the researcher's initial fore-conceptions invariably change as they engage with the participant's account of the phenomenon. They describe a movement between the parts and the whole of the participant's story, thus reflecting Heidegger's hermeneutic circle. The initial understanding of the text (transcript) makes particular aspects of the account stand out, and these in turn change the overall understanding of it. The movement is cyclical between the parts and the whole. In line with Heidegger, Smith, Flowers & Larkin (2009) acknowledge that "truth," as an isolated construct, will never be obtained. Ultimately an interpretation will emerge which best fits the phenomenon at hand. Each interpretation will be relative to the particular research participant's experience of the phenomenon, although generalisations may emerge between accounts. In addition, the narrower the field of study and the more homogeneous the group of participants, the more likely it is that a shared structure will emerge.

4.2.3 IPA and levels of reflection

Considering the way that interpretations are made, one may be forgiven for assuming that participants are simply reflecting on private, "inner" experiences, when the purpose is to reveal something shared. Indeed, IPA requires participants to reflect on their experiences, yet the act of reflection conjures up the idea of a detached standpoint from which a subject appears to contemplate a tangible object, i.e. the 'memory' of the experience. To make the picture even more Cartesian, Smith, Flowers & Larkin (2009) state that reflection is primarily a "mental" process, which is why IPA focusses on cognition. This is true, but, we could argue, only as far as the *act* of reflection is concerned. Reflection is a means of tapping into the original experience, and it is the latter which holds meaning for the participant. It is the job of the IPA researcher to read into the participant's original experience and extract its meaning. To do this the researcher has to pay close attention to what the participant says, ask the right questions and make a suitable interpretation.

Smith, Flowers & Larkin (2009) suggest that it is often the most unexpected or unusual response from a participant which holds the richest source of information. From a Heideggerian perspective the underlying meaning of a phenomenon is revealed when our familiar way of coping with it breaks down in some way. Something unusual, outside the normal routine may occur which brings the phenomenon to the forefront our attention. This can come from a particularly good, or particularly bad experience of it. Either way, the further from the norm it is the more striking the revelation may be. Smith, Flowers & Larkin's (2009) embrace of the unusual reflects this underlying philosophical principle and justifies their description of IPA as an essentially idiographic endeavour. Smith, Flowers & Larkin (2009) unfortunately, do not limit reflection to a methodological tool, but posit it as an ontological necessity saying, "As well as a practical engagement with the world [being-in-the-world] involves self-reflection and sociality, affective concern and a temporal existential location" (pp.17). They support this claim with Heidegger's (1927/1962) quote: "Dasein is an entity which is in each case I myself: its being is in each case mine" (pp. 150). This conjures up the notion of dasein as a self-sufficient subject with intentional mental content which can be revealed through reflection. Heidegger, however, was using a method known as *formal indication* to show that in fact, the opposite was true (Dreyfus, 1991).

In formal indication one first proposes something that seems obvious, and then shows phenomenologically that the initial proposition is incorrect. Heidegger does this at the beginning of the section of Being and Time (1927/1962) entitled *An Approach to the Existential Question of the Who of Dasein* (pp.150). At first it seems that dasein is an individual self (the formal indicator), but it turns out that dasein, in its initial undifferentiated state, is a one's self (das man selbst) constituted by social norms. This simply means that people inherently do what "one" does (i.e. what the culture or society prescribes) until, perhaps, they find a unique way of doing it. The latter relates to an authentic mode of being as opposed to being in an inauthentic or undifferentiated mode. The authentic mode reflects a way of responding to the unique situation instead of the general one and reflects a degree of mastery. The point is that Smith, Flowers & Larkin (2009) appear to have misconstrued the reflective aspect of dasein as something basic through what appears to be a superficial reading of Heidegger.

Heidegger, in fact, goes to great lengths to show that when human beings cope with the world on an every day basis, they are, for the most part doing it in a shared, unreflective and highly skilled way. This position of being absorbed in the world is, as we have argued, a more basic mode of existence than the notion of the self as an individual subject contemplating an objective world.

None of the above, however, reconciles the fact that the data IPA uses results from reflection, when what we are interested in is the way that participants cope with a particular phenomenon in an immediate, ready-to-hand way. Smith, Flowers & Larkin (2009) suggest that the kind of phenomena that IPA investigates are those which arouse a degree of reflection in the participant at the time, either because they are upsetting or in some way unusual. This would be a suitable description of breaking bad news during a prenatal scan. A relevant question to ask is to what extent an individual must reflect in order to cope successfully in such a situation? More than likely it is the reflective aspects of a situation which are remembered, although they arose out of, and operated on the basis of, a more absorbed way of coping with it. A degree of reflection may have been necessary at the time because the ongoing flow of the situation was disrupted.

Heidegger (1927/1962) suggests that when a routine (ready-to-hand) situation starts to break down it enters an unready-to-hand mode, but that this alone is not sufficient to invoke a reflective stance. The person may feel something is wrong but immediately alter their behaviour to accommodate the change and carry on. They may also have to stop what they are doing and rectify the problem if it presents too great an obstacle, which can lead to a detached contemplation of present-at-hand facts. Of course, the picture may not be so black and white. There are likely to be degrees of disturbance and corresponding degrees of reflection (i.e. cognition) which can occur as the situation unfolds. Smith, Flowers & Larkin (2009) acknowledge this fact, albeit from a somewhat Cartesian point by positing four layers of reflection (Figure 8).

1. Pre-reflective reflexivity: A minimal level of awareness as we are conscious of being conscious.

2. The reflective "glancing at" a pre-reflective experience: Intuitive, undirected reflection on the pre-reflective, as when we engage in daydreams, imagination and memory.

3. Attentive reflection on the pre-reflective: Experience becomes an experience of importance as it is registered as significant and requiring attention.

4. Deliberate controlled reflection: Phenomenological reflection. Mentally replaying a sequence of events and conducting a formal analysis of the content of pre-reflective reflections on those events.

Figure 8. Layers of reflection underpinning the IPA approach. Adapted from Smith, Flowers & Larkin (2009) (pp.189)

Notice, however, that the base level of reflection, which constitutes a minimal level of awareness, still invokes the notion of an isolated subject. It still requires a minimal level of detachment from the world in order to notice one's situation from the outside. What Smith, Flowers & Larkin (2009) have left out is the most primordial level of being-in-the-world which is essentially non-reflective. This level is manifest in "flow"

(Csikszentmihalyi, 1991), a phenomenological example of which, as we said earlier (pp.81), may be given by an expert sportsperson describing the experience of "being in the zone." Or, indeed, a skilled sonographer absorbed in the technical flow of a routine prenatal scan. It follows that this level must be explored by phenomenology if what lies hidden (the true phenomena of phenomenology) are to be revealed. It would seem that this missing level in Smith, Flowers & Larkin's (2009) model is simply one more level in the continuum and so it would seem reasonable to suggest that it be added on and subsequently accessed.

Damasio (2010), like Smith, Flowers & Larkin (2009), suggests levels of selfawareness when he investigates consciousness from a neurobiological perspective, although his begin with non-conscious neural activity. This activity and its corresponding state of pre-conscious awareness could be considered as the causal basis of a ready-to-hand mode of being, in which skilled behaviour, according to Dreyfus (1991), is manifest. It is akin to the mode that the Dreyfusian expert (Dreyfus, 1986) or Aristotelian phronemous may operate in when they are performing at their very best. This ground level of everyday coping can, as we have said, become a source of reflection when it breaks down to such an extent that it warrants our attention in order to necessitate some form of modification.

For Damasio (2010), deliberative engagement with the environment is one of the main purposes of consciousness, or to be more specific, the type of consciousness that is minded (i.e. that forms a mind). A minded consciousness is "self-aware" as the brain
is able to map not only the body proper, but the mapping process itself. It allows an autobiographical self to emerge which can learn from experience and plan ahead. A minded consciousness has the capacity to relate to itself which epitomises the mode of being that humans have. As we have seen, Heidegger (1927/1962) calls that mode of being *existence*.

Existence simply reflects the fact that being is an issue. Dasein, accordingly, is defined as the being whose being is an issue for it. Heidegger borrowed this concept from Kierkegaard (1849/1989) who proposed that "The self is a relation which relates itself to its own self" (pp.43). This simply means that human beings have a self-interpreting nature, and when one considers the vast array of interpretations that human beings can make (from the implicit cultural to the overt individual) the phenomenon of interpretation becomes obvious. Damasio (2010) points out that the capacity for selfreflection and planning is made possible by a highly developed cerebral cortex which has allowed human beings to evolve into the complex social species that they are today. To this end he proposes three levels of self-awareness (Figure 9) which are analogous, in part, to Smith, Flowers & Larkin's (2009) levels of reflection.

The first level, the Protoself, is simply the mapping of body states by the brain, whereas the second level, the Core Self, is action driven and engages and modifies the underlying body states of the Protoself. This is essentially the mechanism underpinning the Somatic Marker Hypothesis (Damasio, 2006) (discussed in Section 6.4.1.2), where innate dispositional representations allow the organism to react to its

environment "instinctively." The body states of the Protoself can generate corresponding primordial feelings such as fear or pleasure.

1. Protoself: Non-conscious primordial feelings generated in the brain stem from the neurological mapping of body states.

2. Core Self: Action oriented engagement with the environment in which the core self unfolds in a sequence of images that describe an object engaging with the Protoself and modifying that Protoself, including its primordial feelings.

3. Autobiographical Self: Biographical knowledge pertaining to the past as well as the anticipated future. The multiple images whose ensemble defines a biography generate pulses of core self whose aggregate constitutes an autobiographical self. This embraces aspects of one's social persona and constitutes a "social" and "spiritual" self.

Figure 9. Neurobiological levels of self-awareness. Adapted from Damasio (2010)

From this basic mechanism, acquired dispositional representations, resulting from prior experience, can modify the core body states which then produce a corresponding somatic marker or gut feeling (Gigerenzer, 2007). The latter then guides a response to the environment. Again this operates at a non-conscious level of intuitive or instinctual action. There may be self-awareness, but not necessarily self-reflection. Although the processes guiding and effecting the behaviour may be non-conscious, the corresponding somatic marker is experienced in consciousness as an emotional affect during the event. The autobiographical self is, on the other hand, purely reflective and constitutes a deliberative engagement with the world. Here we can see that Damasio (2010) provides a level which is missing in Smith, Flowers & Larkin's (2009) model. We can suggest that both the Protoself and the Core Self operate within Heidegger's (1927/1962) ready-to-hand mode of being and can be added prior to Smith, Flowers & Larkin's (2009) level of pre-reflective reflexivity, which is built on the notion of a self relating to itself. Indeed, Smith, Flowers & Larkin (2009) use Maurice Natanson's (1974) idea of the "natural attitude," i.e. the most basic level of human being, to describe pre-reflexive reflexivity. According to Mohanty (1975), Natanson suggests that the natural attitude "already includes reflection... a spontaneous 'becoming aware that one is aware'" (pp543). We could argue that when self reflection begins we have already reached the level of the autobiographical self. However, it is at the level of the core self from which reflection can emerge as situations break down or become unready-to-hand. The latter may then lead to "reflective glancing at a pre-reflective experience" (Smith, Flowers & Larkin 2009, pp.189). Although this involves the autobiographical self it is still a stage prior to attentive reflection, during which present-at-hand facts are considered. The final stage of *deliberate controlled reflection* in Smith, Flowers and Larkin's (2009) model is related to the phenomenological analysis itself.

Smith, Flowers & Larkin (2009) acknowledge, to some degree, what Damasio (2010) suggests in his neurobiological model of consciousness, by grounding being-in-theworld at an essentially physical (i.e. embodied) level. The authors say that "Merleau-Ponty's view, that the body shapes the fundamental character of our knowing about the world, is critical. For Merleau-Ponty, practical activities and relations - the physical and perceptual affordances of the body-in-the-world - are thus more significant than abstract and logical ones" (pp.19). This statement gives primacy to the background physiological processes that mould consciousness. Such processes are at the heart of a neurobiological model of empathy (Section 6.4.1) and constitute the background activity which underpins being-in-the-world and being-with others. Here, Smith, Flowers & Larkin (2009) suggest, in line with Heideggerian philosophy, that this fundamental level of involvement in the world is more significant in the study of how human beings live their lives than abstract theories. This is in essence an anti-cartesian and, therefore, an anti-cognitivist standpoint. Existence, in terms of being and doing, is given precedence over mental phenomena and the rules that govern them. We can see how this reflects the underlying premise of this thesis: that the detached theoretical perspective underpinning medical models of breaking bad news, offers only a privative view of a process that essentially requires a considerable level of human involvement. The latter, of course, has already been reflected in nursing research (Benner, 2000).

4.2.4 IPA and cognition

Being-in-the-world is essentially a pre-reflective process, yet Smith, Flowers & Larkin (2009) suggest that IPA focuses on cognition, which is, to all intent and purpose, reflective. To reconcile this difference the authors state that "IPA is almost always concerned with experiences where the individual is prompted to contemplate, take stock, worry and try to make sense of what is happening" (pp.188). Pre-reflective experience, which is essential to our every coping with the world, still, therefore,

retains validity at an ontological level. The critical moment when bad news occurs during a prenatal scan, is an example of a situation during which a sonographer may have to take stock, worry and contemplate their options.

Contemplating experiences, Smith, Flowers & Larkin (2009) suggest, must involve cognition, as does the sense making process that occurs afterwards. The latter is particularly relevant to the IPA interview where the participant is asked by the researcher to reflect and analyse the experience (the fourth level of reflection in their model). The problem, however, is that phenomenology aims to uncover what lies hidden behind the conscious experience. In other words, it tries to find a structure to the background processes that were in operation prior to the situation breaking down and the phenomenon under discussion becoming evident. The question, therefore, for this project must be: what happens during a prenatal scan prior to and during the moment that bad news occurs? Smith, Flowers & Larkin (2009) argue that the background also involves cognition on some level. This is contradictory to Heidegger's (1927/1962) suggestion that for the most part, everyday skilled coping is pre-reflective. Perhaps this point may be reconciled by looking more closely at what Smith, Flowers & Larkin (2009) define as cognition.

The authors use Husserl's description of perceiving an object to argue that the natural attitude (which, as we have seen, has already been endowed with reflective properties) involves primarily cognitive processes:

"While observing, I perceive something... I reflect, draw conclusions; I take back a judgement, perchance abstaining from making any judgements at all. I am pleased or displeased, I am glad or sad, I wish or I will and I do something" (Husserl, 1982, pp.190; cited in Smith, Flowers & Larkin, 2009, pp.190).

Such activity would indeed appear reflective and, therefore, cognitive. If the natural attitude represents our most basic level of engagement with the world, or "being-in-the-world," then one has to draw the conclusion that Smith, Flowers & Larkin (2009) see this as a primarily reflective process. Unfortunately reflection requires contemplating something rather than being a part of it. Thus, the person reflecting is distanced from what is being reflected upon and a dualistic standpoint emerges, particularly when what is being reflected upon is the world itself. When it is our own experiences that are being reflected upon then they too can become isolated mental phenomena subject to scrutiny. This was Husserl's phenomenological position. Heidegger, on the other hand suggested that we should look outward rather than inward, focusing on our engaged activity in the world rather than introspecting on privative mental acts.

Smith, Flowers & Larkin (2009), however, emphasise the point that IPA does not emerge from a Cartesian philosophy. Instead they suggest that, although IPA focuses on cognition, the latter "...occurs within the informal, intuitive domain of reflective activity in the natural attitude. It is dynamic, multi-dimensional, affective, embodied and intricately connected with our engagement with the world" (2009, pp.191). Although this constitutes a rather vague definition, we must understand that the authors view the problem of cognition from a psychological background and recognise that they have to make one of two choices: "We can choose to excise the construct [cognition] from our conceptual framework," they say, "or we can choose to use it, but to use it in a different way from that in the dominant paradigm" (Smith, Flowers & Larkin, 2009, pp.191). The authors, as it turns out, chose the latter.

4.2.5 Summary of the IPA method

IPA has, at its heart, the kind of phenomenology that Heidegger unveiled in Being and Time, yet we have seen from the previous discussion that certain contradictions may arise when its philosophical underpinnings are placed under scrutiny. To this end, Smith, Flowers & Larkin's (2009) original levels of reflection have been extended to include the non-reflective levels of existence more akin to being-in-the-world. The latter has been supported, to some degree, by a neurobiological model of the self (Damasio, 2010). Although cognition is central to IPA its meaning is somewhat unclear. Smith, Flowers & Larkin (2009) try to extend its meaning beyond that of an isolated mental construct to encompass both mental and embodied activity. By doing so they attempt to stay closer to Heidegger's fundamental ontology of dasein as "being-in-the-world."

Unfortunately, Smith and colleagues also suggest that reflection, as a cognitive act, is a basic part of dasein's being. Instead, we have suggested that, from the perspective of IPA, cognition should broadly cover neural activity in the brain, some of which can be conscious and some of which can be non-conscious. As much of this activity is related to the body on a basic level, cognition, in this new guise, becomes integral to an embodied presence in the world. Not only this, but the broader conception of cognition places body and world at a fundamentally more basic level in light of the neural mapping of body states. As the latter represents the core self it represents the starting point of consciousness and subsequently, the capacity for self-reflection. This opens up a continuum of experience where, what may have once been pre-reflective retains a connection with what inevitably becomes reflective during the phenomenological inquiry.

Phenomenological level of self	Level of consciousness	Situational mode
1. Protoself: Non-conscious neural activity generates primordial feelings	Non-conscious	Ready-to-hand (absorption)
2. Core Self: Engaged being-in-the-world neurologically modifies and maps primordial feelings	Unreflective consciousness	
3. Pre-reflective Self: Undeliberative self-defining through action	External (world) consciousness	
4. Reflective Self: Deliberative/intuitively guided engagement with the world	Internal (self) consciousness	Unready-to-hand (breakdown)
5. Contemplative Self: Controlled reflection on significant experience	Introspective consciousness	Present-at-hand (detachment)
6. Investigative Self: Engagement in phenomenological inquiry	Analytical consciousness	

Table 1. The phenomenological levels of self

The latter is illustrated by the phenomenological levels of self (Table.1), which combine Smith et al's (2009) reflective, and Damasio's (2010) neurobiological, levels of self and compare them to Heidegger's situational modes of being.

4.2.6 Sample size in an IPA study

For this study the sample size was not calculated statistically as this is a qualitative study. Instead, it was decided in accordance with current guidelines relating to the IPA methodology. IPA suggests that sample sizes of between 8 and 12 subjects are usual for a doctoral level IPA research project (Smith, Flowers & Larkin, 2009).

IPA tends to use relatively small and homogeneous samples. It looks closely at each participant's account of the phenomenon and does not try to generalise its findings. However, it is not opposed to making general claims for larger populations, but is committed to the analysis of a small number of cases which may subsequently lead on to generalisations. In addition, IPA uses purposive sampling in order to find a more closely defined group for whom the research question will be significant. In this study the topic under investigation, namely sonographers' experiences of breaking bad news in prenatal ultrasound, defines the boundaries of the relevant sample.

4.2.7 Recruitment of participants

Initially potential participants were identified from records held at the University of Cumbria. The latter included details of past students and educators who have agreed to be contacted for educational and research purposes. A University of Cumbria database administrator (post graduate course leader) with access to the records selected potential participants who met the inclusion criteria. They sent the potential participants a standard letter of introduction from the researcher (me) (Appendix 1) and a Participant Information Sheet (PIS) (Appendix 2). This letter asked potential participants to contact the researcher should they be interested in taking part. If they did not respond to the letter and PIS after two weeks a reminder letter was sent (Appendix 3) with a copy of the PIS. If no contact at all was made by the prospective participant it was assumed that they had declined to take part in the study. No further contact was made on my behalf.

Unfortunately, the above method of recruiting participants was incredibly unsuccessful. None of the prospective participants contacted by the university responded. I decided that a larger catchment area was needed and set about identifying the 30 largest maternity hospitals in England from an online database (www.birthchoiceuk.com). The names of the lead sonographers were obtained from the individual NHS trust websites and sent an introductory letter (Appendix 4) with three copies of the participant information sheet (PIS). The letter asked them to make the project known to the radiographers in their department and to contact me if they wished to take part. If no reply was received within two weeks a reminder letter (Appendix 5) was sent with a copy of the PIS. Once again, if no contact at all was made by the lead sonographer it was assumed that they had declined to take part in the study. No further contact was made on my behalf.

If a prospective participant responded to the PIS, and they were happy to take part in the study, they were given the opportunity to ask me any further questions. If contact was made by post or email, I either emailed or telephoned the prospective participant to confirm their involvement and to answer any questions. At this point a meeting was arranged between the participant and myself at a mutually agreed time and location.

On meeting the participant written consent in relation to their agreement to take part in the study and to have their interview with the researcher audio recorded was obtained. The participant signed and dated a consent form that had been prepared in advance (Appendix 7). The participant was given time to review the consent form and ask me any questions before signing it.

Although language barriers were considered as part of the ethical process, especially in terms of potentially excluding certain groups, I decided that all written and verbal communication would be in English. As communication with the general public is an important part of a sonographer's job, particularly those sonographers working for the NHS in England, it was unlikely that they would have difficulty understanding verbal explanations or written information in English.

The method of recruitment employed yielded a total of nine participants who took part in the study. All were female with between 8 and 25 years of experience in obstetric ultrasound. Each worked in a different NHS Trust at the time of the interview. Ages ranged from 28 to 55 years with a mean age of 45 years. The demographics of the participants were, therefore, considered suitably homogeneous for an IPA study as all were female with at least 8 years experience of breaking bad news during a prenatal ultrasound scan. The fact the sonographers worked for different NHS Trusts was considered important, due to the potential cultural influence a particular department might exert on the practice of breaking bad news. A group of participants from a single NHS trust may have reflected experiences that were overly similar: guided, perhaps, by particular methods of training, specific protocols, or social "norms." Although this would not have been outside the realms of IPA research, the uniqueness of the experience pertaining to the shared phenomenon of breaking bad news was ultimately enhanced by this aspect of the recruitment process. The interviews lasted between 70 and 180 minutes, with a mean interview time of 102 minutes.

4.2.8 Safeguarding participants

The sensitive nature of the topic under discussion had the potential to pose psychological risks for the participants. For instance, participants may have had recollections of painful memories and associated arousal of buried feelings of guilt and distress about a particular examination that had had a poor outcome. With this in mind, each participant was asked at the end of the interview whether they required further emotional support or counselling. The latter is generally available in the Occupational Health department of most NHS trusts. If it was not, I reassured them that the University of Cumbria had a counselling service available.

There was also a possibility that participants might have become distraught and

subsequently be unable to complete the interview. If they did become distressed at any point I offered to suspend the interview. I then asked the participant whether they wished to continue, change to another topic or terminate the interview. I also permitted the conversation to "go off record" at the participant's discretion if the issues raised were too deeply personal to be recorded. Participants were also offered editing rights over the recording during the interview itself. In addition I made it clear that they had the opportunity to review interview transcripts and make editorial changes later on.

In the case of illegal or unsafe practice being disclosed, the participants were made aware of my duty of care as a registered health professional, and that I must operate in accordance with professional codes of conduct (HPC, 2008; SCoR, 2008). They were also reminded that I may be obliged to break confidentiality. A practical solution was to deal with any issue as it was uncovered by discussing it with the participant and encouraging them to communicate with an appropriate person. The Participant Information Sheet clearly stated my duty of care.

There was also a risk that participants may have felt obliged to remain in the study after signing the consent form. I did, however, remain sensitive to the participant's readiness to remain involved and respected their right to withdraw at any time. Phenomenological research is an ongoing, dynamic process and as such, it was my duty to facilitate negotiations and re-negotiations to protect the participants' human rights.

4.2.9 Data management

A digital audio recorder was used to record the interviews between the researcher and the participants. After each interview the audio files were transferred from the recording device to a University of Cumbria computer, which was password protected and locked in my office. The memory of the digital audio recorder was then erased. Prior to transcription, the audio files were transferred from the computer to an encrypted Universal Serial Bus (USB) memory stick and stored in a locked filing cabinet in my office at the University of Cumbria.

For the purpose of transcription the audio files were transferred from the encrypted memory stick to the computer in my office at the University of Cumbria. I then transcribed the audio files using OpenOffice Writer (www.openoffice.org) and saved them in electronic format (Writer .odt documents). Both the electronic transcripts and the audio files were then transferred back onto the encrypted memory stick and stored in the locked filing cabinet prior to analysis.

The analysis of the transcripts was undertaken using my computer at the University of Cumbria. Files were only transferred from the encrypted memory stick to the computer during the analysis. Once the transcripts had been analysed, the audio files were erased from the encrypted memory stick. No other copies of the audio files existed from that point forward. When not being used, the transcripts were transferred from the computer to the encrypted memory stick and stored in the locked filing cabinet in my office. Any direct quotations were anonymised.

4.2.10 Confidentiality

The participants have not been directly identified in any of the published work associated with this research. Any direct quotations have been anonymised by using pseudonyms in place of the participants' original names. The latter were applied at the transcription stage. No information relating to the connection between the participants' names and the pseudonyms has been recorded or retained.

4.2.11 Ethical approval

Taking all the above points into consideration an application for ethical approval was submitted to the University of Cumbria Ethics Committee and granted in October 2008 (Appendix 7). A second application was also submitted to the NHS National Research Ethics Service (Cumbria and Lancashire B research Ethics Committee) in order to access sonographers working in NHS Trusts. For the latter, a review meeting was held in April 2009, the recommendations from which are detailed in Appendix 8. Approval for the study was granted in May 2009.

4.2.12 Analysis

The data comprised of the anonymised interview transcripts. Nine transcripts in all formed the data set. Each transcript represented one unstructured interview with one research participant. The interviews were unstructured for a reason. Initially it was thought that a semi-structured interviewing style would be adopted, using a table of themes to guide the conversation - a method advocated by IPA research. A table was prepared for the purpose of showing the research ethics committee in advance of

starting the actual interviews with the participants (Appendix 9). This, however was dispensed with during the first interview, and for all subsequent interviews. As Smith, Flowers & Larkin (2009) point out, a qualitative interview is supposed to be a "conversation with purpose" (pp.57) and a schedule is primarily devised to make that conversation more comfortable for the researcher and ultimately their participant. A schedule, in other words, acts a virtual map of the type of questions the researcher might ask and the topics they want to cover. It is a prompting device, designed to obviate the anxiety of awkward pauses and prevent the conversation going "off topic." From the beginning of the first interview of this project it became clear that the topic of breaking bad news during a prenatal scan was so well defined, and the purpose of the conversation so well understood by the participants that the schedule became redundant. In fact, it may even have limited the scope of the conversation if used, as each participant had a very unique story to tell. It was the unexpected nuances of each participant's account which were to shed most light on the topic and to challenge preconceptions of it. Each story, however, was born from experiences of a very similar world: the world of the prenatal obstetric ultrasound scan in which bad news had to be communicated. There was no danger of going "off topic" and, for the most part, my job as researcher was simply to listen, while the participant talked.

Following the interviews, the transcripts were set out in an electronic text document (created by OpenOffice Writer) which had two margins: one to the left and one to the right of the text. Each transcript was read a number of times, and the left hand margin was used to annotate what was interesting or significant about what the participant said. Some of the comments were attempts at summarising or paraphrasing, some were associations or connections that came to mind and others were preliminary interpretations. This process continued for the whole of the transcript. I then returned to the beginning of the transcript and used the right hand margin to document emerging theme titles. Here the initial notes were transformed into concise phrases which aimed to capture the essential quality of what was found in the text. This transformation of the initial notes into themes was continued throughout the whole transcript. If similar themes emerged throughout the transcript the same theme title was be repeated.

The emergent themes were listed in a separate electronic document and I looked for connections between them. In the initial list the order provided was chronological, based on the sequence with which they came up in the transcript. Some themes clustered together and some emerged as more important or higher ranking concepts. As the clustering of themes emerged it was checked in the transcript to make sure the connections worked for the primary source material – the actual words of the participant. I also compiled a directory of the participant's phrases that supported related themes. The latter were indexed to the corresponding line number in the transcript at which they appeared.

The next step involved producing a table of themes, which were ordered coherently. Clusters of themes were given a name which represented the superordinate themes. The table listed the sub-themes which went with each superordinate theme. An identifier (the line number at which the theme appeared in the transcript) was added to each instance of the theme to aid organisation of the analysis and facilitate finding the original source later on. Practically, however, it was easier to find the original source using the "find" function in the electronic document containing the transcript. During this process certain themes were dropped: those that did not fit well into the emerging structure or that were not rich in evidence within the transcript.

The table of themes from each transcript was put aside prior to analysing the next transcript. This was repeated until all transcripts had been analysed. A final table of themes was produced combining all the themes from the separate analyses. The final part of the analysis occurred as the themes were translated into a narrative account. The themes were explained, illustrated and nuanced. The final table of themes guided the account of the participants' responses during the interviews.

My interpretation was divided into two stages. The first stage occurred between the participant and myself during the interview. Here my preconceptions of the topic changed, providing me with a new understanding of it. The second stage occurred when I engaged with the transcript, moving, during the analysis, between its parts and its whole. Initially my preconceptions of the topic were informed by what I had read in the literature, very little of which related directly to the sonographer's experience of breaking bad news.

During the first interview I was undoubtedly entering very new, but exciting territory.

Indeed, my understanding was transformed at this point. Inevitably, I approached the second interview with my new found perspective (my new "fore-having"), which, in the true spirit of existential hermeneutics (Heidegger, 1927/1962), had changed both my "fore-sight" on, and "fore-conception" of what I was about to discover. After the second interview, although the sonographer's story was very different on a personal level from the first participant, the overriding similarity between certain structures of the process of breaking bad news had already begun to surface: similar structures (i.e. themes), but from different perspectives. The cycle of interpretation continued with each interview as I moved constantly within the "hermeneutic circle" of my own understanding.

There could be no "right" or "wrong" answers from the participants as the story of breaking bad news in prenatal ultrasound unfolded. There were similarities, of course, as this was a very homogeneous group describing a very specific topic. But there were also differences: unique idiosyncrasies in emotionality and practicality. Throughout the process I listened to stories of sadness as well as joy, commitment as well as despair, and each reflected an existential relevance for the lives of the participants. It was the latter that made the journey of interpretation worthwhile, brought a saliency to the otherwise unknowable (especially if one has not experienced it oneself) subject of breaking bad news, and provided me with a broad enough understanding of the topic to relate the emerging themes to each participant's story. In other words, something of the phenomenological structure of breaking bad news during a prenatal ultrasound scan - already implicitly understood by the participants on a pre-ontological level -

emerged during the analysis. This structure can only truly be observed in the narrative accounts as the reader shares the participants' experiences of it. In sharing the experience, something close to an understanding may be achieved.

In the following chapter we shall look at the narratives produced from each of the participant's accounts and suggest ways in which they reflect the shared phenomenon of breaking bad news during a prenatal ultrasound scan. For the purpose of clarity, the structure of the phenomenon will be laid bare in a summary of the results, but only as a guide to understanding it. Any structure is necessarily an abstraction of the "truth" about what it means to break bad news during a prenatal scan. The truth itself lies, as Heidegger (1927/1962) suggests in the "being-uncovering" (pp.261) of a phenomenon, i.e. in the shared understanding of the experience of it. The reader, then, will have to enter their own hermeneutic circle, and enter it in the "right way," with an open mind, in order to reach an understanding of the topic in question. They will have to listen to the participants themselves (via the narrative accounts), consider the structure laid out in the interpretation, and remain sensitive to what their own forehaving, fore-sight, and fore-conception is telling them. This process will begin in the next chapter.

CHAPTER 5 Results

5.1 Introduction

This chapter tells the participants' stories in their own words. The aim being to highlight the unique aspects of each sonographer's style of breaking bad news, and of scanning in general. A total of nine sonographers agreed to take part in the study. Each worked in a different NHS trust in England. All the participants were happy with their final interview transcripts. Two participants made editorial changes before the final draft was used in the analysis.

All the interviews were conducted by myself (the researcher) and all but one took place at the participant's place of work. (The interview with Carol was conducted at her home.) Inevitably this meant I had to travel, as each participant worked in a different NHS trust in England. That said, I never had to venture south of Birmingham or north of Lancaster due to the limited response from the regions invited to participate in the study (see Figure 10). Thirty different maternity hospitals within twelve regions (the regions being defined according to the groupings of maternity hospitals used by BirthChoiceUK (www.birthchoiceuk.com)) were initially contacted. Nine hospitals within five regions responded - the latter included the North West, Yorkshire, Merseyside, Trent, and the West Midlands. One sonographer from each hospital agreed to take part in the study. The interviews were spread out over a period of twelve months between May 2009 and May 2010.



Figure 10: Regions of England (coloured) initially invited (a), and that agreed to take part (b) in this research project (adapted from www.birthchoiceuk.com).

The interviews were recorded using a digital audio recorder. The majority were conducted either in the ultrasound examination room or in a "quiet room." This was often the room where the sonographer had previously taken women following the disclosure of bad news during a scan. The ambience and the atmosphere of the location may have been conducive to reviving memories of previous encounters, although this was not considered at the time; the location was purely a matter of convenience. Besides which, Nicola was interviewed in her office and Carol was interviewed in her home. As mentioned in the methodology chapter, the transcriptions of the recordings were made by myself (the researcher).

There was much data to consider during the analysis (93,140 words transcribed over

approximately twenty accumulated days). The participants' stories did not present themselves in a coherent and orderly fashion, rather disappointingly, and so a great deal of work was needed to "make sense" of the data. Of course, certain similarities were obvious: events followed a sequential course (meet patient, scan patient, detect abnormality, tell patient, move on to next patient); breaking bad news was never a pleasant experience; and finding an abnormality generally came as a shock, regardless of the length of professional experience. These initial observations helped to structure the data in terms of two over-arching themes: temporality and involvement.

Each sonographer's story was considered separately and individual differences emerged, but often in terms of these two main themes. This does not suggest, however, that there was any selective interpretation of events for the purposes of telling a structured and coherent story. The temporal structure was a given, almost an *a-priori* consequence of protocol and technical necessity. All patients were informed about the procedure at the beginning and the scan proceeded in a logical fashion covering the acquisition of specific data. It was how the scan progressed when it turned out to be a "bad news" scan that drove the analysis. In this respect there did not appear to be any major anomalies, no "outliers" as such. From the moment the interviews were completed and transcribed (two processes during which much consideration was given to the data and an inevitable, if not deliberative, analysis undertaken) it transpired that none of the participants relished giving bad news, or gave bad news non-sequentially. (The latter would almost certainly have been impossible, e.g. breaking bad news before scanning, or even meeting the patient.) However, the level of involvement, or empathy, between the sonographers and their patients did vary, both between participants, and within participants, depending on the concrete situation they faced. It is the latter which possibly makes the individual stories so unique, although other differences will undoubtedly become obvious in the following accounts.

5.2 Sonographers' accounts of breaking bad news

5.2.1 Judith

Judith works in a city hospital and has been a sonographer for over twenty years. I met her on a late August afternoon. She was softly spoken and thought about every question, just for an instant, before she gave her answer. Perhaps she was hesitant about talking to strangers, or aware that she was being recorded. After a while, however, the pauses became shorter and the conversation flowed a little easier. We sat and talked in the examination room for about an hour.

Judith starts by talking about the difference that being able to disclose information to parents has made to her job. She suggests her relationship with the patient has become more honest. "At one time, you know, it might have been the form to fob them off a bit while you get somebody else, or took them to somebody else who was going to tell them," she says. "So now that's completely different, you know. It's just not acceptable to tell somebody a half truth. You need to be honest to the best of your ability really. But that is easier than trying to fob them off with something in a way, even though you know that they're going to be upset." For Judith, the stress of having to hide an abnormality from the patient has dissipated with the change from nondisclosure to disclosure. Despite breaking bad news always being a possibility, Judith wants her patients to enjoy the experience of having a scan. She recognises that different women come with different expectations and that her approach may change with each new person she meets, yet she always tries to promote the positive aspects of scanning. Judith does, however, admit that happy, excited patients can make breaking bad news difficult but thinks that preparing them for the possibility of bad news would have a generally negative effect. "I think if you were to do that it would take away the pleasure for people where everything was alright," she says. "If there is something wrong then nothing is really going to take away the shock and the upset, not really. By sort of bringing them down like that before you even start... it's not really going to help I don't think."

Judith talks a little more about her initial interaction with the patient. "You'll introduce yourself the same way to everybody but it will probably change your attitude a bit more with somebody who is anxious, because you want to be reassuring, you want them to feel relaxed," she explains. "Whereas with somebody who is excited you want them to enjoy the pleasure of it. You know, if everything's fine then it is a great experience and you want them to still get a sense of that." The first few moments when Judith meets a patient can give her some valuable information. "Patients come from all walks of life and obviously some are a lot more intelligent than others – without wanting to sound rude - but they just are," she explains. "Their level of understanding, how fast they cotton on to what you're doing, even their

understanding of what you tell them... everybody's different and their reactions are different. Really, you have to weigh people up in a split second to gauge what you're saying." Judith is sensitive to the fact that each patient brings a unique perspective to their ultrasound examination and she quickly works out what that might be. She connects with them. She gets a sense of how that person is feeling, what their expectations are and how much they understand. This can be particularly relevant when bad news has to be given. "You know that whatever you say to that person is going to remain with them forever," Judith says. "If somebody is told something bad they remember those first words that are said to them."

I ask Judith how it feels to discover an anomaly. "It's hard," she says. "The whole situation is hard from the very start, from the second you realise there's a problem and you know you're going to have to tell them then you're tummy flips... that never goes away. And then saying it, dealing with it... I don't burst out crying obviously but if your eyes fill up then so what? Everybody's upset you know, it doesn't matter." Finding an anomaly can come as a shock. It can be upsetting. Judith, however, does not feel she has to hide her emotions. In fact, she wants to show enough emotion for the patient to realise that she cares. "It must be helpful to know that somebody understands how you feel," she says. "To be cold and detached isn't, you know, very nice really is it?"

Judith also infers that the moment of discovery is a point at which she disconnects from the patient in order to investigate her suspicions fully. "You're communication

with the patient might go a little quiet briefly because you've got to be certain, you know, you've got to concentrate, you've got to look, you've got to know that what you're going to tell them is going to be correct," she explains. "Your mind's already racing ahead as to what you're going to say and how you're going to say it." Time is at a premium and the longer the period of concentration lasts, the more the patient might suspect that something is wrong. "If everything is OK you're fairly quickly going to be saying 'I've seen the baby, I've seen the heartbeat," Judith says. "But there's a bit of an interim silence if you don't see that, which feels awkward... If it's a dating scan then it's a matter of looking for a heartbeat... If it's an anomaly scan it's perhaps more difficult because it needs longer to look at, however, under those circumstances the patient may... you know, will just think that you're concentrating on looking around and probably won't realise as quickly as they would with an early scan. But now we have slave monitors that the patients can look at, so they can see what you're seeing now. Obviously mostly they can't read it, they won't understand it so they won't know. But you're also very aware that they can see what you're looking at." Although Judith has to disconnect from the patient to concentrate, she is aware that they may suspect something is wrong. Slave monitors may give the patient a greater sense of involvement in the scanning process, which enhances their experience, but this can be seen as intrusive by the sonographer when abnormalities are being investigated.

The period following a discovery, for Judith, is an intense time of concentration where suspicions are confirmed and the correct words are sought to explain the findings to

the patient. Occasionally a second opinion may be obtained for equivocal cases, and although Judith prefers not to disclose anything to the patient before the findings are confirmed she feels she has to be honest with them. "We tend to be guided by the patient," she says. "If they ask you a question, if they want to know what you think is wrong, then you have to answer it. But if they don't ask you the question, they just accept that. Then you go and find somebody else and get a better look." When an obvious abnormality is evident, Judith approaches the subject tentatively, re-engaging with the patient and responding to them on a moment by moment basis. "I put the probe down and stay where I am - which is fairly close anyway - and look directly at them," she explains. "I have hugged patients, but some don't want to be hugged, so again that's something else you need to weigh up. If it's somebody that's on their own I would definitely take their hand and gauge from that how much physical comfort they want. Maybe just touch their hand... it's instinct really, it's a little instinct because some people aren't tactile are they? They don't want to be touched, they don't want physical comfort at that time. But you can just tell really. I can't tell you how you can tell but you just can."

Judith turns her attention back to the patient after making a discovery, and uses touch to re-connect with them. Then she tells them what she has found, which she feels has to be done in a direct and honest way, without sounding harsh or uncaring. "I would start with 'I'm really sorry but I have to give you bad news here," she says, "and then go on to say... always broach it with some sort of a gentle approach. It's important to say how sorry you are and then say it, not just dive in and say, 'Your baby's dead' or 'Your baby's died,' but to approach it gently... 'I'm really sorry but I have to give you bad news here,' and then tell them what it is." Judith suggest that saying sorry and acknowledging grief is important, no matter what stage of the pregnancy the patient has reached. She is sensitive to each patient's unique experience of loss. "The reactions of some ladies who have lost a baby as early as five weeks can be just as great as the reaction from somebody who's later on. So it's probably not fair to say that one situation is worse than another, because they're individuals aren't they? It's what it means to them as individuals."

Judith deals with bad news as and when it occurs. The possibility of discovering an abnormality is not something she thinks about with every new patient she meets. She prepares the patient immediately prior to imparting the information and how she does this can be guided by instinct. Where soft markers are evident, Judith works under the assumption that patients already realise that anomalies can be detected and although she does not reinforce this message at the beginning of every scan, she re-iterates it when she feels the moment is right to tell them what she has found. "I would sort of ease into it a bit more really by beginning by saying, 'As you're aware this scan is a screening scan so it will be possible to find abnormalities on baby," she says. "I'd explain what a soft marker is, what I'd seen, what that could mean, and then just go on to say that they would then need to speak to an obstetrician... a consultant obstetrician and somebody else to... And I would explain more about what needs to happen next." It is important for Judith to keep the patient moving forward. She puts a pathway in place for them to follow, although the fact that this can be a slow process

is often frustrating. "What you're trying to avoid really is too long a period between them being told that and then speaking to somebody else," she explains. "We give them as much information as we can and then, you know, because that is the worst thing having to wait, it's always the worst thing - having to wait and find out what happens next, but there's not a lot you can do about that."

Keeping herself moving forward is also something Judith tries to do. There is nearly always another patient to see and she does not want her previous experience of giving bad news to detract from that person's experience. "I like to think it doesn't show," she says. "You're now with another person, another individual and you're concentrating on them, not what's gone, but on them and their examination... You've got to put it out of your head. You can't go round being upset for everybody all of the time."

Talking to her colleagues is one way Judith alleviates the stress of breaking bad news and prevents it affecting her life outside of work. "We'll have a chat at coffee break," she says. "We all get on very well and we support each other with anything and everything. So, you know, it's good to be able to talk about it. So you don't take it home with you." Judith also feels that not enough recognition is given to the fact that breaking bad news is an important and difficult part of a sonographer's professional responsibility. "I don't think it is recognised enough really," she explains. "I don't think even with – and maybe it's not right to associate it with how you're paid – but with agenda for change and with the job descriptions, not enough was made of that

really in that points system. That responsibility that we have."

In summary, Judith promotes the ultrasound scan as a pleasurable experience for her patients. She deals with bad news as and when it occurs. Nothing, she suggests, can take away the patient's shock of being told there is something wrong with their baby. For her, reinforcing the possibility of an abnormality being present, at the beginning of the examination, would have a generally negative effect. It appears that Judith engages with her patients on a level that allows her to prepare them for bad news as the situation unfolds. Her connection with the patient prepares her for discovering an anomaly and telling the patient about it. Judith's approach is not so much about preparing the patient in advance, but rather approaching each examination with a tacit readiness to deal with problems as they occur.

5.2.2 Alison

Alison works in a large hospital and has been a sonographer for more than fourteen years. I went to her department in late August. The interview took place in a small, minimally furnished office. There was a desk under the window, where I placed my voice recorder, and two chairs facing each other at one corner. Alison sat with her back to the window. Her hair was tied in a pony tail and she wore black rimmed glasses. Occasionally, as we spoke, she would lean forward, pressing her palms on her knees and watch attentively for my response. Sometimes she finished my sentences for me. We talked for about an hour and a half.

Alison discusses what ultrasound was like before she was allowed to disclose information to patients. Mostly, the restrictions made her feel distant from the women she was scanning. "The radiologists were in charge of things," she tells me, "we were told to do our scan and then get advice at every stage. We hand wrote our reports and the doctors looked at our reports for reference but didn't actually always use our words." Alison felt disconnected from the patient and unable to provide any emotional support following bad news. Leaving patients for long periods while she went to find a doctor or midwife was not uncommon, and that made her feel like a spectator. Alison remembers one particular patient. "The midwife told her... I wasn't even able to tell her anymore," she recalls, "I just said 'Here's the midwife,' and 'here's the report... there you are'. And you know that has always stuck with me. I felt that I didn't help that lady, you know, and she must have had a terrible time."

Today, Alison has no doubt that connecting with a patient is an integral part of a sonographer's job. "Ultrasound's a really interesting environment to be in," she says, "because you've got a problem that you're solving straight away... and it's instant, you've got to give the report straight away." For Alison this means taking responsibility for the patient. Professionally she wants to find anomalies, but personally she feels she has a duty to care for the patient emotionally when that happens. "If you don't do it nobody will," she points out. "If you don't see it nobody else will ever see it. If you don't look after the patients they won't be looked after."

Alison discusses the importance of assumptions prior to the scan, both for the patient

and herself. "A lot of obstetric patients will think they're coming for something social," she explains, "and you have to be very firm at the anatomy scan and say, 'This is a scan where I'm looking for things that might be wrong.' For the dating scan they always assume... they've been to see the GP and everything's perfect." Alison suggests that the patient's expectations of the scan, particularly the social expectations, may conflict with its purpose as a screening tool. So she wants to give the patient a clear picture of why they are there, and often tells them plainly about the screening implications. Alison feels that the information given by the midwife at the time of booking should prepare the patient for the possibility of bad news, but this does not always happen. "On a normal obstetric scan their expectation is that things are fine, they're going to be able to see the baby," she says. "Quite often they just want a photograph and the sex if they haven't thought things through, and they don't appreciate the skill of doing a scan and they don't appreciate the implications. Even though part of the midwife booking visit is supposed to be counselling them, it just doesn't seem to get on board."

There is a tension between the social and screening elements of ultrasound and Alison experiences this as barrier to starting the scan. One way she might tackle this barrier is by controlling the mood of the situation. With an excited patient she says, "I'll try and dampen them just that little bit because they'll be wanting to see the screen before you've even put the probe on. I have to say right at the beginning, 'You're going to have to give me time, I will be talking through it, but you've got to let me do this."" The reverse applies to anxious patients. "You've got to slightly relax them and gee them up," Alison explains, "because if they're too tense you can't scan... because they just, they're so tight you can't move over their tummy." Alison tries to create a mood conducive to getting the technicalities of scanning underway: a patient asking too many questions is a distraction, a patient that is too tense makes scanning physically impossible. Alison is essentially "levelling" the patient's mood to give the scan a more relaxed and neutral atmosphere.

Excited or anxious patients form two ends of a spectrum, and many will have moods that fall somewhere in between. How does Alison assess a patient's emotional state when there are no obvious or overt signals? She tells me that there is a certain amount of information she can acquire before the scan which helps her build up a mental picture of the kind of person she will meet. "You gain information before you get the patient in because you read why you're doing the scan," she explains. "When they've put thyrotoxicosis on the form, you'd think 'thyroid,' but you wouldn't know that would be a hyper-anxious person who would be very jumpy, unable to relax, and would be a thin person who would actually be easy to scan. You know, all that sort of thing comes into your head once you've had some experience." I would call what Alison is describing an "informed assumption." Her experience of reading request cards and then interacting with patients allows her to make an informed judgement about them. When Alison actually meets the patient she quickly gathers further information, helping her to complete the picture. "The patient stands up and comes towards you," Alison says, "and you either think big - 'big' tends to go with more relaxed most of the time, it seems to be somebody who's been through something

already. Or you think *thin, young, nervous*... but then you think *thin, young, beaming at me*... oh that's alright."

On the surface it might appear that Alison is making snap judgements about people. Big and relaxed... thin and nervous... are these not traditional cultural stereotypes? Perhaps, but remember that Alison has had years of experience examining patients and her initial judgements are based on an accumulation of evidence over a long period of time. She is also describing a continual process of evolving impressions from gaining prior information, to the first few moments of a meeting. Stereotypes are fixed; they almost never change. As Alison scans she keeps the interaction going. She describes a level of involvement with the patient that keeps her in touch with what the patient wants and how they might be feeling. "As I start the scan I'm fairly chatty and I'll give an explanation of what I'm looking for," she says. "But I'll also ask them, 'What do you want to know... do you want to know the sex?' So we've got that feedback already and then I talk as I scan." It is important to Alison that she initiates and maintains the initial connection with the patient, but she fears that the constraints of time and the pressures of working to a busy schedule create obstacles. "You're under a pressure of throughput, of workload, of getting the next one there. You're conscious that people are piling up in the waiting room behind you," she confides. "And the thing to do if you're trying to speed up a list is cut out the patient bit and just do the scan." Time pressures can also add to the stress of breaking bad news. "A sonographer really feels the contrast between the breaking bad news bit and the workload around her... of the whole 'you've got another five patients to see," Alison says, "and that is

a stress that no other profession seems to see because they don't work in our way."

It is clear that Alison feels her role as a sonographer is not fully appreciated by other professions, and this adds to the tension created by the factors already mentioned: differing expectations and workload versus time. Perhaps the midwife could do more to prepare the patient at the booking stage? Perhaps the management could organise more time? One practical solution Alison embraces is the ultrasound consent form which, she says, not only helps her prepare the patient for potentially bad news, but gives her that little slice of time to facilitate an interaction. "We feel that having to sit and actually physically explain and sign - you've got to go through that sheet of paper," she says, "will force you to use the time and make sure that you don't cut that bit [the patient bit] out." Alison tells me that the consent form is a relatively new idea and not widely implemented yet.

I ask Alison how she copes with finding an abnormality. "Even though you know that's the reason for your anatomy scan, that is *so* unpredictable," she explains. "I went for seven months without finding one and I was starting to doubt myself, I was starting to think that maybe my scanning ability was going." Alison says that finding an abnormality always comes as a shock, and the longer the period between discoveries, the greater that shock becomes. She reflects on one particular instance: "My heart was just so low, I was shaking... I was literally shaking, trying not to show the patient," she remembers. "I went through my checklist. And I actually took too long on that scan because I knew I was so shaken that I wanted to make sure that I got
things... And that patient was more worried because she knew that I'd taken forever on the scan and there must be something there." I ask Alison what goes through her mind in that situation. "You've got to tell yourself to concentrate because you want to do the best for the patient," she explains, "and it's a little mental 'what's my checklist?' And I almost stop before I start again so that I know my checklist of all the other things I need to find out are clear, and then do the rest of the scan. And that's OK because I'm concentrating on one thing."

Alison experiences the moment of discovery as time standing still followed by a period of intense concentration. Although focussed on the scan, she is acutely aware that the patient is watching her. Alison is aware that the patient may *sense* that something is wrong. "They'll notice when I go a bit more silent," she says, "so I have to explain myself. But I always say, 'I've got to concentrate on this bit now and I'm going to be more quiet." Here Alison maintains a connection with the patient by telling them what she is doing. Although she feels she is becoming a little distant while she concentrates, she still keeps the patient involved. "You tend to concentrate and separate yourself more from the patient," Alison explains. "You've got to tell the patient that you're not going to talk to them so much... You've got to get to a point of completion, and if you detach too soon you're not going to concentrate now."" Here Alison talks of "detaching" from the patient as though moving away from them. Not physically, of course, but mentally and emotionally. She compares this to how a newly qualified sonographer might cope in a similar situation. "I think, when you're newly

qualified, you will detach and go colder more," she says, "and you can only bring the warmth in to sort out the situation with experience. First off, all you've got to do is sort the patient out and you can't give the empathy back again... I think that comes with experience." When an abnormality is discovered, Alison experiences the subsequent passage of time in terms of detaching from the patient and becoming emotionally colder. She wants to bring the warmth back again, but first she needs to pursue her investigation in perceived solitude.

The way Alison describes finding an abnormality highlights something important: *experience* plays a crucial role in the ability to re-connect with the patient and be genuinely empathic. It suggests that without experience the connection might be inescapably lost. Where Alison works, newly qualified sonographers are advised to seek help from a more experienced colleague and Alison describes them as still being in the 'I've got to be clear about what I can say to the patient' stage of breaking bad news. "That person's still detached," she says, "and they're detached longer than I would have been. So they're coming out of the room to get some advice to get somebody to go back in and that patient hasn't got that empathy yet."

For Alison, breaking bad news is about getting to a point of completion, which hinges on initiating and maintaining a level of involvement with the patient. There is a necessary period of detachment which has to be overcome, yet only with experience can this be achieved. I want to know how Alison manages to re-connect with the patient and what she does when this happens. "I have to go back to the patient again," she says, "and then I can get emotional. Sometimes I'm crying while the patient's crying... I'll quite often give the patient a hug because by that time she's upset and I'm upset and both of us gain from it."

Alison continues by describing how she deals with the various reactions patients can have to bad news. "The floods of tears is easy because that's go and get a tissue, it's something you can do practically and then you can give them an arm around the shoulder, you can wait and then they'll respond back to you," she explains. "Some people will go very, very quiet and that's hard to deal with because you don't know whether to go quiet with them but you still want to impart information. And you don't get any response back at all, and you get very worried about that." When a patient fails to react, the connection is lost and that worries Alison. Without that connection Alison feels unable to keep the patient moving forward through the experience.

There are practical ways to keep the patient moving forward. "You're trying to create more space to put them into another room and to find a midwife to take out of the clinic to tell them about it," Alison says. "But you've got to do the counselling because you can't leave the patient not knowing. There's so many questions and you've just got to give them a little path." In cases where further tests may be necessary, planning a referral is one way of creating that path. "You've looked in the notes to see whether they've accepted screening or declined screening, but then you ask again, 'Have you thought about screening, do you know where you want to go?"" Alison explains. "In that situation you refer to foetal medicine for a risk factor even if they decide, having spoken to us and having spoken to the consultant, they're going to ignore the risk factor... We always give them the next level to go on to so you do know that that's the path you're going down."

Alison tries to keep herself moving forward too. When a patient fails to respond to bad news it worries her. What she might do then is follow them up as a way of getting closure on that particular situation. "If I feel that I didn't do it right I'll then go to the person that I passed them on to later in the day, or the next day, or the next time I see them and say, 'Do you remember that patient? What happened?'" she explains. "That bad news patient will stick with you until you're happy that you've done all that you can." If a quiet patient subsequently has an emotional response, Alison can re-connect with them retrospectively and be satisfied that she has done her best. "At the end of the day when you're still worried about the patient," she says, "you can say, 'I helped that person'. If I hadn't have done that scan, if I hadn't of been able to look after her well - if you feel you have - then, you know, it could have been worse for the patient." From a wider perspective, moving forward, for Alison, is about being able to derive satisfaction from her job as a whole. "We're looked at as a piece in the process," she says, "and you just have to accept that your satisfaction comes from doing your piece well... It's a good job. It's a very, very satisfying job if you get it right. It really is. And you're getting the hit, you're getting the 'I've done something' every half an hour."

Alison's style of breaking bad news centres on a connection with the patient that

allows both herself and the patient to move forward throughout the experience. It is important for her to control this process. A crucial point Alison makes is that such an approach will only develop with experience, and it is not necessarily something that can be taught. "A sonographer who's learning needs to be immersed in the ultrasound department as much as they can," she advises. "It's like learning to drive a car. You've got to be able to physically do things and look on the road ahead... and gradually you speak to your passenger... you have to train to be interactive and detached at the same time." This analogy suggests that through experience - through being immersed in the world of ultrasound - a sonographer can develop a level of familiarity with scanning that allows them focus more on the patient and less on the technical aspects. It allows them to maintain that vital connection with the patient, even through the period of intense concentration when a discovery is made. But that is not all. To have any chance of accomplishing any of this Alison suggests you also have to have the right personality. "It's really hard to tell somebody who wants to do the training that they're not going to get to the end of it," she says, "But you've got to sort of put it that you've got to be able to cope with your everyday life right through the rest of your career and you've got to be able to care for the patient again. It's not just doing the scan, it's the whole thing."

5.2.3 Paula

I met Paula on her lunch break while she was working in a busy inner city hospital. The place was a hive of activity but we found a quiet place to sit. It was tiny. The office had just enough space for two chairs as long as nobody wanted to use the door. Paula had been a sonographer for eight years and had always been allowed to break bad news. She talked with purpose and practicality. We sat and chatted for just over an hour.

When Paula meets a patient she tries to find as much out about their expectations of the scan as she can. "You could be getting Joe Bloggs in off the street," she says. "Five minutes later you're telling them they've had a miscarriage, and you've got to have gauged whether they're expecting it, what their level of understanding is - because you've got to know what level to pitch it at. I would always say, talk to your patients and suss them out. Suss out the situation, their level of understanding, how they think things are going, you know." Paula uses all her resources to glean as much information as she can about a patient. She not only talks to them but watches them closely, picking up subtle signals as to how they might be feeling. "You go off body language," she says, "you go off some of their responses, even if it's just things to get them to answer the... you know, like confirm their date of birth or their address or whatever." For Paula, every second of that first meeting counts because it prepares her for the prospect of breaking bad news later on. She gets a sense of how that person might react. "I don't know whether you should or shouldn't pre-judge people from first sight," she admits, "but it helps build up how you're going to put things across."

Patients' preconceptions of ultrasound can, according to Paula, often make breaking bad news more difficult. Before the advent of ultrasound consent forms – now routine in her department – Paula found that explaining the purpose of the scan and what it could find was a good way of preparing the patient for bad news. "The majority of people want a picture of the baby and the sex. They're not bothered about the fact that you're looking for millions of different things that could be wrong," she says. "I always used to explain what the scan was about and explain that we were looking for problems. And then it helped me in that if I *had* found a problem, it then gave me a lead in to telling this person at the end, 'Right I've got... will you just have a look at this with me? As I explained to you at the beginning we are looking for... 'And it just helped me start off the process of explaining what was going on." Paula's approach to scanning appears to hinge on preparation. She prepares herself by 'sussing' the patient out, and prepares the patient by warning them that abnormalities can be detected.

Maintaining a constant level of communication with the patient throughout the scan is also something Paula finds useful. "I find it easier to then tell someone something if I've been speaking to them before, rather than me do the scan in silence and then suddenly drop this bombshell," she explains. "I mean, you don't want someone cracking 'knock knock' jokes every ten seconds - there's a fine line - but I think to be lying there in silence doesn't do anyone any favours. It doesn't do the sonographer any favours because it's quite a tense atmosphere, and from the patient's point of view you're lying there thinking, 'Well why are they quiet?'" Paula suggests that silences are tense and that a constant flow of communication can preclude such tension. Talking, she infers, also keeps the patient involved, and while they are involved they are less inclined to worry. "I have like a general patter of conversation which I could reel off without thinking about it," Paula explains, "and I probably don't listen too much to the answers. But you've kind of got that interaction going on between you... There's a fine line between not saying enough and saying too much. And I think with experience you learn to gauge how much you say and how much you don't say." Paula has developed her style of communication into an art form. With experience she appears to have acquired the skill of maintaining that fine line between saying too much and saying too little.

When Paula breaks bad news she feels it is important to make sure that the patient has fully understood what they have been told. She tells me that how the patient reacts is usually a reasonable guide as to how much they information they have absorbed. "The ones where you get a more physical response – crying or asking questions, whatever – you think that they've grasped it more," she says. "The people who are quiet and you don't get the feedback, they're the ones where it's more tricky and I would tend to make sure that I'd said it again in a different way." In the early pregnancy clinic patients regularly speak to a nurse following a scan and Paula uses this to illustrate the importance of re-iterating what has been said. "It sometimes takes those few minutes of - when they're getting dressed, whatever - and then going through, and somebody explaining the same thing but perhaps in a different way. It sometimes takes a double approach to make sure that it's sunk in."

Paula talks about the shock of discovering an abnormality. "Your stomach's usually disappearing into the floor," she says. "Obviously you've got to sort of gauge what kind of a problem it is. You're then trying not to give anything too much away to

them until you've got your head round what's going on really." Maintaining her patter of conversation helps Paula avoid any awkward silences that might alert the patient to the fact something is wrong. "If you go quiet," she explains, "then their reaction to you changes and you've got to keep everything calm enough and easy flowing until you've got that... Because you've obviously got to get that second person in... It's just keeping things under your control until you've both agreed for definite what's going on, what you're likely to say, and what the next step is going to be." The 'second person' she mentions is someone to provide a second opinion.

In Paula's department a second opinion is always sought after an anomaly has been detected. She says this has two main advantages: It gives her time to both work out what to say and to put some sort of support structure in place to move the patient on to the next stage of the process. "We'd sort of alert antenatal clinic beforehand, make sure there was a counselling room or if that was busy if there was a quiet, private space where we could take the patient and then hand over the paperwork and stuff," Paula explains. She gives an example: "If you've got someone who should be twelve weeks and it's measuring five weeks and there's no FH [Foetal Heartbeat], their periods were spot on - really regular," she says, "you'd kind of usher them more towards it possibly being bad news, but not being able to tell for definite, and then getting them booked for a re-scan. For the person it perhaps feels like things are moving forward a bit more." Paula realises that there can often be a delay before the patient can get a referral appointment and suggests that having the facility to do the next scan straight away would keep the patient moving forward. It may also help her

move forward too. For example, in a planned environment like the EPFAU (Early Pregnancy Foetal Assessment Unit), Paula experiences more closure on the situation and feels more positive about breaking bad news. "There's sort of more of a pathway that you would follow," she says, "and, again, I don't know if it's because it's all arranged and done while the patient's there and with you or with the nurse - we're in adjoining rooms - it feels like there's more closure on the situation from the sonographer's point of view."

There are situations which often do not require further testing or planning. "Things like a miscarriage where it's cut and dried, I find... for me personally I find that is easier to deal with," Paula says, inferring that being able to give the patient a definitive diagnosis is another way of reaching some form of closure. "Finding a problem on an anatomy scan I find harder and I still find hard," she continues, "and soft markers I find particularly hard." When Paula breaks bad news she tries to keep the patient involved in what she is doing. She wants them to take an active role in the situation, as opposed to feeling like a passive observer. "One thing I always do is give the person the opportunity to look at the screen so they've seen what I've seen," she explains. "Say there was talipes or something, I would then go and show them, and show them in real-time what it is. I mean you get some people, especially if they've had a miscarriage, who do not want to see. That's fine you know. But I think to have been given the choice is important."

Paula suggests that achieving closure on a particular bad news patient is difficult,

especially when the department is busy and sonographers are under pressure of throughput. "Unfortunately you just have to pick yourself back up and get on with it," she explains. "This is where professionalism comes into it, and you have to put on the persona, you know... they don't know that Josephine's just had horrendous news." Once again, Paula's strategy of maintaining her patter of conversation can help her create a sense of normality with the next patient. "I think that's where I can benefit from the fact that I can just talk inane rubbish at people," she says, "and it gets you through, and I don't know if it's my own personal coping strategy but it just helps because then you're just back to doing routine, normal... you know. It's not fair on the patient you bring in next to get the backlash of what's gone on just before."

One thing that Paula finds invaluable is support from not only her immediate colleagues but other professional groups that work in the department. Colleagues, of course, can maintain continuity for a patient by taking the next person on the list and allowing Paula to accompany her bad news patient to a quiet room and make further arrangements for them. "I think we work particularly well as a strong unit here, and I find that helps a lot," she says. "That helps a lot, and sort of, not even in ultrasound - in the wider sense of the term - the midwives are very supportive, you know, the doctors who we know in clinic. The more you get to know people and the more that you talk to people I find, you know, you're all there to help each other out."

Paula's style of breaking bad news, in fact her whole approach to scanning, is something she seems to have developed through experience. "I think experience helps and I think that seeing how different people do it helps," she says. "And all the students, certainly at this trust all work with all the different sonographers. It's not just one person's way of doing it and this is how you do it... I think it's being able to amalgamate everything that you're seeing, you're learning because obviously you'll see how the patients react to different ways of saying it... and then you develop your own style." Paula suggests that there is not one correct way of breaking bad news that people can learn. It is more about developing a style of breaking bad news that suits the individual sonographer.

5.2.4 Ruth

Ruth works in a modern city hospital and I went to visit her on a September afternoon. When I arrived at the department she was scanning so I waited in the staff room. It was small. I noticed that my PIS [Participant Information Sheet] was on the notice board, which somehow made me feel less intrusive. The interview took place in the scanning room. I placed my recording devices on the examination couch, aware of the noisy air conditioning system and concerned that Ruth's chair was a little further away than I would have liked. Ruth, on the other hand, was more concerned with people finding out what she was about to tell me and asked cautiously about where the findings might be published. I think she was worried about being identified by some of the consultants that worked at the hospital. She had been a sonographer for eight years and had only ever conducted obstetric examinations. I reassured her that confidentiality would be maintained, but I was intrigued about the secrets she held, and whether she was going to tell me everything. We sat and talked for about two hours.

Ruth starts by expressing her views on the patient's expectations of prenatal ultrasound. She suggests that women, on the whole, appear to be more informed, but struggles with the fact that the majority of her patients are still unaware of the screening aspect. "I know they're getting more detailed booklets," she says, "because more of them look more *au fait* when I talk about things like screening, and risk, and things like that." The problem, Ruth believes, is that women are overly concerned with the social aspects of the scan and that this leaves them unprepared for the possibility of bad news. "All they want to know is the sex of the baby. That's what they want," she explains. "That's the be all and end all. They want to go shopping. They're lying on the bed discussing their shopping arrangements while you're trying to look round this baby for anatomical defects." I ask Ruth whether she thought that her patients are at all prepared to find out whether their baby has an abnormality. "They don't want to know really. They think they want to know but I don't think the vast majority really have thought it through," she replies. "They're supposed to have a big discussion with the midwives... Often you'll see written in notes screening *declined – twenty week scan accepted*. It's screening, no difference, but it isn't seen as screening, it is definitely not seen as screening."

I get the impression that Ruth is somehow fighting a losing battle. Despite the information and the discussion with the midwife, she infers that the majority of her patients still fail to appreciate the diagnostic capabilities of ultrasound. Ruth feels the

only way she can prepare them is to tell them explicitly, at the start of the examination, why they are there. But even this does not always work. "I say to every woman very carefully and plainly, 'You do understand that this is a screening test, exactly the same as the blood test - the sixteen week blood test? And that if we happen to find anything wrong you may have to face really difficult decisions about the pregnancy," she explains. "Some of them say, 'Yes, I understand,' and take it in but the vast majority still aren't listening. They've got a blank face and they haven't taken it in, and they're always the ones that something crops up on. It's never the ones that are semi-prepared; they're always the ones that are OK. You know, it's sod's law isn't it if they're not sort of prepared." Ruth suggests that a prepared patient may be more inclined to accept bad news, so she really wants her patients, and whomever accompanies them, to be fully informed of the purpose of the ultrasound examination. Unfortunately, even her best efforts are sometimes in vain. "I have had one husband exclaim - when I said at the end of the scan I'd found something - 'You didn't tell us you might find something!" she recalls. "And I had said... I say that spiel to every patient! He'd been in the room when I said it but he hadn't heard it." I sensed that attempting to overcome the communication barrier is a constant source of anxiety for Ruth.

Following the initial interaction with the patient, Ruth tells me she is fairly quiet compared to most people when she is scanning. "I don't chatter needlessly because I need to concentrate," she tells me. "But I go through each item and I say 'This is the cerebellum, I'm doing the head and I'm going to do the spine' or 'baby's wriggling a lot' and try and make light of it. Try and make it a pleasurable experience for them." Ruth maintains a basic level of communication but does not get socially or emotionally involved with her patients. She makes their experience as pleasurable as possible without actually immersing herself in it. Like she says, she has to concentrate. Despite this, Ruth is aware that her patients are watching her and this can make her increasingly self-conscious when an abnormality is evident. "I've been told my face is quite expressive when I'm scanning, so I have to be careful," she admits. "My body is already preparing with adrenalin to break the bad news, so I'm physically shaking while I'm scanning the patient and that's just almost impossible. I mean sometimes I've had my hand shake so much I had to take the probe off the patient and waffle about something to try and calm down." Finding an abnormality can be stressful for Ruth, especially when her patients are unprepared. The frustrating thing for Ruth is that she tries her best to prepare them, but the majority still fail to appreciate the screening element of ultrasound.

Ruth reflects on the time she spent working in the early pregnancy clinic: a short period just after she had qualified as a sonographer. "I thought, 'I can't do this job, it's nothing but telling women their babies have died, it's awful," she recalls. Since then, Ruth has become more philosophical about foetal demise in early pregnancy and now finds problems with longer term pregnancies harder to deal with. "Early in the pregnancy it's not that big a deal in the scheme of things," she suggests, "but it was when we started doing the twenty weekers; that's what got to me and to be quite honest if I could find... and I'm looking for another job, I would take it to get me out of the stress of that. Because I do find it extremely stressful to the point where it makes the job unpleasant to do." I ask her why she found it so stressful. "Because parents have such expectations," she replies, "and by the time you get to twenty weeks you're half way through the pregnancy and you think everything's OK. It's *got* to be OK." For Ruth, breaking bad news in early pregnancy is easier because it is less ambiguous, especially in the clear cut case of foetal demise. "There's nothing you can do about it," she says. "Nature has taken its course, it's gone, there's no decisions to be made, *fait accompli* you know, 'Sorry but your baby's died." When a foetal death has occurred there is, for Ruth, only one message to deliver and it is definitive. In addition, Ruth feels that women are more prepared to accept bad news in the early stages of pregnancy because they often have symptoms indicating a problem. "Some of the time the women are semi-prepared," she says. "They've been having bleeding and they've stopped feeling sick - they've stopped feeling pregnant."

The difficulty with breaking bad news later in pregnancy, according to Ruth, is that the information she has to give is often not definitive - soft markers for example - and that even the suggestion of a problem can have long term psychological effects on the patient. "It's worse than telling someone that their baby's died in my opinion," she says, "because it's this, 'Is it, isn't it? Oh dear what's going to happen next?' It's all their hopes and dreams for that child that go up in smoke. Anything you tell them after that, even if it's a relief when they have the amnio – that it turns out its karyotype is normal – the damage I'm sure has been done initially, and you can't ever go back to that. As long as that child lives that mother knows that something was seen on that scan... anything that child ever gets to its dying day she will think back on that. It's there now, it's in the public arena so you can't get away from it and I think that's a devastating thing to do to a patient." Ruth sees herself as the bearer of bad tidings. Her job, she suggests, is to tell people that there are things wrong with their baby, even though she cannot say for sure exactly what they are. What makes Ruth most frustrated, however, is that her patients are often consenting to ultrasound without fully understanding what they are agreeing to. In her eyes, when patients consent to ultrasound, they consent to screening. "You'll still get the ones that then don't go for diagnostic testing," Ruth says incredulously, of those patients who have been informed of a suspicious anomaly, "which begs the question why they had the screening in the first place."

I ask Ruth how she copes on a personal level with breaking bad news. "If they're quietly tearful, I think that affects me more than someone raving and, you know, getting really upset," she explains. "Because you sometimes feel a bit tearful with them." Being upset is a sign that a patient has grasped what they have been told and all Ruth can do then is offer some support. To sense that someone is *quietly tearful*, however, suggests some form of tacit emotional resonance on Ruth's behalf: an ability to tune into subtle emotional signals that the patient elicits. I suggest that this is the basis of genuine empathy, and is, perhaps, the source of Ruth's implicit emotional resonance a quietly tearful patient. Interestingly, Ruth finds a lack of reaction from a patient as easy to deal with as an overt reaction. She infers that a lack of acceptance of reflects a lack of understanding, which in turn reflects a general lack of acceptance of

ultrasound as a diagnostic tool. "I can't really say *unintelligent* patients," Ruth says, "but patients who go through life looking at things comfortably and simply and don't think. They're probably the easier patients to deal with because often they, somehow, don't sometimes take in the full enormity of what you've told them, and in a way that can be a relief for a sonographer."

Ruth emphasises the fact that poor communication can prevent patients from understanding information. Ambiguous phrases like 'no foetal heartbeat,' for example, can often be misinterpreted. "I was taught that I should make sure that the patient has fully understood, and that they understand the term 'no foetal heart' - the heart is not beating," she says. "Because a lot of people don't even realise that 'no foetal heartbeat' means that the baby's died, and you get a lot of, 'Well what does that mean?' And you actually have to use the word 'died' because that is clear then, what the outcome is, to a lay person." Ruth prefers a direct approach to giving information and is keenly aware of how particular words might be misconstrued, even when a scan is otherwise 'normal.' "The patient will pick up on words like 'normal' and 'fine' and 'OK' and will remember those later when everything is *not* OK," she points out. "Particularly the husbands, they will say at the twelve week one, 'Oh it's all normal then?' I say, 'No scan will tell you that the baby is normal.' So that's *him* educated."

Ruth is concerned about the lack of support for obstetric patients who have received bad news. "When you break cancer news and things like that you're supposed to have all this counselling service behind you and backup and everything don't you?" she says. "At a twenty week scan, you might be breaking what to the patient is very bad news and then they're having to go home afterwards with maybe just a leaflet. Having to go home and look it up for themselves on the internet and frighten themselves to death." All Ruth can do is provide a little time at the end of the scan to help her patients before they have to go and deal with the problem themselves. "We've got a quiet room," she says. "They get the time they need, no matter. The others wait."

In summary, Ruth highlights a rift between the social expectations that patients have of a prenatal scan and her role in screening for abnormalities. This forms a barrier to communication. The way in which Ruth describes her relationship with the patient makes her sound disconnected, apart from when she feels a genuine sense of empathy for those who are 'quietly tearful.' Scanning, for Ruth, is a battle against the barriers posed by the patients' lack of understanding and a general lack of support.

5.2.5 Margaret

I met Margaret after a series of unfortunate events: First I went to the wrong hospital, the city in question had two main sites. Second, I had spent just over an hour queuing to get in the wrong hospital's car park and then needed to find a taxi. Third, the other sonographer I was supposed to be interviewing was off sick. Despite this, I eventually found Margaret, and after finishing her morning list she took me to a quiet room where we chatted for about an hour. Margaret was 'old school'; she had been doing ultrasound for over thirty years and took a very direct approach. I got the impression Margaret was something of a maverick, in a pioneering sense, and that she knew what she was talking about.

Margaret starts by summing up her whole approach to ultrasound in one word: Honesty. Margaret says that she has always been honest with patients, even in the days before sonographers were allowed to disclose any details of the scan. One thing she has never done is hold back from giving the patient full and frank information. "As soon as I qualified I was not going to 'um' and 'ahh' or tell lies about the situation," she explains. "I've always given bad news all the way through and that's how I've taught any sonographers that have come through here. So perhaps we have bucked the trend a little in that respect." Margaret explains that not having any radiologists in the department at the time she qualified, gave the sonographers a sense of autonomy. "We related straight to the obstetricians," she says. "There wasn't a radiologist down here that you had to call in to do anything." In many other ultrasound departments, towards the end of the late nineties, radiologists were gradually, and historically, relinquishing control of information and handing responsibility for its disclosure over to sonographers. Margaret, however, had always had that control.

Being in control is important to Margaret. She likes to stay in charge throughout the scan, and getting as much information at the beginning of the examination about the patient and their pregnancy helps keep her one step ahead. "I always say, 'Have you felt the baby move?' Etcetera or, 'How's the sickness going on?' You know," she explains. "You're sort of focussing in on the pregnancy situation." Margaret also

wants the patient to appreciate the screening aspect of the scan, but without overstating the fact that abnormalities might be found. "You'd hint at it," she explains. "To say that we're just looking for an abnormality isn't entirely true; we're looking at where the placenta is, where other structures are, so we're getting the whole picture. I don't want to dwell on it being an abnormality scan because I do think it raises patients' anxiety levels."

Once the introductions are over, Margaret uses dialogue to keep everything flowing smoothly. "I talk people through it; that's my method," she explains. "And I've always sort of trained my people here to learn to speak while you're scanning, because it keeps patients' expectations and it keeps you... *most importantly* it keeps you in charge of the scan and you're not getting interrupted by 'What's that? What's that? all the time. But at the same time it keeps their... controls their fears because you're going through things and saying 'We can see that... and that' and you say 'If I see any problems I will talk about them.'" When Margaret sees an anomaly she prefers not to say anything immediately, because doing so may interrupt the flow of the examination. "As soon as you tell somebody there's a problem it's difficult to scan them," she explains. "You have to work your way round to that and then say, 'I'm looking at this, it doesn't look quite right, there looks to be a bit of a problem. Let me have another look closely.' And then you can start to say... you'II say, 'I'll tell you in a moment just what I think,' and after you've got lots of images then you can sort of talk people through."

Margaret is not overly concerned that her patients might suspect something is wrong the moment she sees a problem. "I don't really think people know what they're looking at," Margaret says. "But they might say, 'Oh I thought you were looking at that for a little length of time." Unfamiliarity with ultrasound images means that patient might not be able to 'see' what is wrong, although they are aware that Margaret is focusing on one particular area. Margaret knows, however, that patients can glean more by reading her expression than they can from looking at the screen, so she obviates this subtle form of communication by manipulating the environment. "I always learned to scan with the patient facing the screen," she says. "Although they can't see my face, I'm talking and pointing out things on the screen." Margaret concedes that there are times when she realises that a patient might suspect something is wrong. "I think that's a dead giveaway if somebody's feeling you tremble," she admits. "Sometimes it happens, sometimes it doesn't and I don't know why sometimes. It's just probably fatigue… but it doesn't happen all the time, it's maybe how tired or stressed out you are."

Time is always a limiting factor in a busy ultrasound department, so the last thing Margaret wants to do is prolong the scan. "You've only got a limited time. You've got a waiting room full of people out there so you've got to manage the situation in a timely way," she explains. "If you're experienced you can be quite quick at collecting the data and getting a few key sections." What Margaret does is try to gather all her evidence before she tells the patient the bad news. Inevitably, though, some cases will take longer than others and avoiding delay often requires a degree of diplomacy when

communicating this to the patient. "Maybe you'll say, 'Oh the baby's not in a very good position at this moment now,' and then do something else," Margaret explains. "So it's thinking on your feet and waiting through the scan until it's the right time to discuss what you're looking at." Leading into bad news can be difficult, but Margaret finds that a standard phrase can often help. "I usually say, 'This isn't looking as it should do alright,' and that can be the opening statement for everything," she says. "The heart's not beating,' for example, you know. And I usually say what I should see: 'I should see this, but what I'm seeing is that'... And I mean I've been doing it for a long time and I suppose, you know, that's how it's evolved and I've found that people respond fairly well to that sort of way in."

In Margaret's view, scanning is not simply a matter of looking for abnormalities; it is a fact finding exercise. Margaret points out that she is checking what is 'normal' as well as 'abnormal' and continually offsetting the positives against the negatives. This is also the way she approaches disclosing bad news. "Everybody wants their baby to be perfect but, you know, they're not," she explains. "It might be a clubbed foot, you know, it might be talipes, you know, it might be a cleft lip. You know, it isn't the end of the world. Babies do get over these things." As well as focusing on the positives, Margaret also tries to be reassuring. For more serious abnormalities (and foetal death) she tries to avoid being unnecessarily blunt. Instead, she chooses to fire a 'warning shot' and then try and lead the patient to the conclusion that there is something wrong. "To say 'Oh your baby's dead' is not the way to do it," she explains. "You have to lead them to make that comprehension themselves." Margaret is conscious of her body language at this point. "It's how you use your voice isn't it? And your bodily manner," she explains. "You can turn and speak to the patient, you know, have that eye contact. Explain why you think something's wrong and then go back and show them, where possible, as much as they need to know; that's not all the gory details but perhaps some of the basic facts. But certainly explain why you are saying what you're saying." Margaret admits that saying the word 'dead' may be the only option in some cases. "You *have* to get over the fact that the heart is not beating," she says, "and that means that you *have* to actually say the 'dead' word."

Margaret finds that, on the whole, her patients react fairly well to bad news and that some of the more extreme reactions often come from the person who is accompanying them. "Sometimes it's the person with – like the grandmother – with the patient, you know, not the mother," she says. "It is the woman with her sometimes that over reacts and is quite... well I'm not saying *over* reacts, you know, reacts rather more uncontrollably than the other one." The patient's ethnicity, in Margaret's experience, is also something to take into account as it can have a bearing on the way bad news is accepted. "I do find that a lot of the Asian women are very stoical," she points out. "They tend not to get... now I don't think that is a language issue because they understand what I'm saying. But they go very quiet and don't break down like European women do."

Another factor which may affect the way a patient accepts bad news, according to Margaret, is having children present during the examination. Sonographers, she suggests, should use their own discretion in how they approach this situation, and that often there is no 'correct' way to deal with it. "I remember one lady with a child - who looked, I thought she was about fifteen - who was with her," she remembers. "But she turned out to be about twelve. And she *did* complain that we'd given the bad news when the child was there. But I thought she was older, and she did bring her with her; it wasn't like she was a two year old. And so you do get that situation where people aren't happy that you've said in front of you know... or my daughter was very upset. Well, she was going to be upset whatever, you know whether... It was one of those, you know, where either you don't commit at all or... if I'd said, 'No you can't bring your daughter in,' I would have been complained about. So it's a bit of a no-win situation."

After breaking bad news, Margaret tries to give the patient some kind of pathway to follow. She wants to keep them moving forward. More information might be required and Margaret uses this opportunity to provide the patient with some hope for the future. "I think a lot of your job has to be reassurance... That's the majority of the work, that reassurance, rather than giving them bad news," she explains. "It's implying that you've got to gather more information... It may be that you look at the patient, you know, it's [the baby is] perhaps short, chunky... 'Well *you're* not very big are you?' So you sort of look at it like that. You look at something and, 'Well you're only five foot,' you know. 'That's probably how the baby is but we'll have a look at it again.'"

Margaret also suggests that controlling the information flow is integral to moving the patient onto the next stage of the process. Too much information and the patient might be overwhelmed, too little and they might not be able to make the correct choices. "You're going to need their co-operation to take them into the next step which is seeing somebody else, you know, having all the questions answered," she says. "You can only give them so much information because it's all buzzing and they've had bad news and they're upset. So there is a time that's suitable for them to reflect on that, to come back for another appointment and that will be, you know, probably quite soon."

Margaret understands that it is her responsibility to produce an accurate report and this gives her a sense of professional pride. She also sees each breaking bad news encounter as an opportunity to improve her skills. "You make it into a learning exercise in terms of 'this is an interesting case' and it's what your training's about really," she says. "So you have to look on it as a sort of professional... I won't say satisfaction but it shows that you're doing your job properly." In Margaret's opinion, finding an abnormality is comparatively less stressful than finding out, later on, that a crucial anomaly has been missed. "Nobody wants to be caught out at delivery," she says. "You know, what is the emotional impact on you that you've missed something? If it comes back that you missed such and such and you did that scan? That is a greater impact on somebody than picking it up in the first place because at least you've done your job properly."

Although breaking bad news is part of a sonographer's job, Margaret does not feel

that this aspect is appreciated by colleagues working in other medical imaging modalities. "Radiographers don't understand that that responsibility is quite a heavy burden," she says. "Even doing plain film reporting, it isn't like you're with the patient and reporting and giving that news... A radiographer isn't a sonographer and they don't understand that relationship, that even in that short time you're scanning somebody, that you build up."

Margaret emphasises the fact that one style of breaking bad news does not fit all. Instead, learning to break bad news is a process of observation, of seeing what works for a particular individual. It is something that can only develop with time and something that cannot necessarily be taught. "It isn't something like you've got to do it this way, you've got to look this way and smile, or whatever, 'pat' somebody," she says. "It doesn't come like a taught thing... It's something you've got to learn how to cope with and you'll find your own way really. But you need to observe how everybody else handles it and what was good and what was bad."

Margaret's style of scanning is very much about being in control. She gains information, weighs up the positives and negatives, and feeds a steady and digestible amount to the patient. She prefers not to let the patient see her facial expression while she is scanning. Margaret is a fact finder. She finds out about the patient, their pregnancy, she accumulates information from the scan, her reports are thorough, she records her experiences in a book so they become a learning exercise, and she directs the patient towards a future point of clarification. Everything is controlled, planned and executed efficiently. "I don't get hysterical people on my hands, you know I don't get people saying 'Oh they didn't tell us anything' or 'you were harsh' or, you know, that sort of feedback," she says. "So nobody comes back, so I feel that what I'm doing meets most people's needs."

5.2.6 Donna

Donna has been a sonographer for twenty five years and leads a department in a busy inner city hospital. Her office, although minute, is a hive of activity. Every few minutes - while I was waiting for her to get back from sorting out a problem with a patient somewhere else in the hospital - someone would pop their head around the door and ask where she was, or the phone would be ringing constantly. I was grateful of the time she spared me to talk about breaking bad news. Finally Donna returned, unhooked the receiver on the phone, and put a note on the door so that we wouldn't be disturbed for an hour or so. I found her very down to earth, entirely unpretentious and, on occasion, brutally honest.

Donna describes breaking bad news as something that evolved as part of the sonographer's role in the late nineties. A combination of patient power and the medical profession gradually relinquishing responsibility left sonographers with no choice but to disclose information themselves. "It started when we had a consultant radiologist who had an interest in obstetrics and we just used to go and get her and she would break all the bad news," Donna remembers. "Then she left, so we were sort of... nobody wanted... the obstetricians weren't bothered, you know, so we just sort

of took it on, and it gradually evolved from there. It was just a case of, 'Wow, we've suddenly got to do it because nobody else is going to do it.'" Donna still feels that the responsibility sonographers have for breaking bad news is not given due recognition by other health professionals. "People don't understand what we do," she says, "because I know when we went for job matching with agenda for change and we were saying what we did and there was a panel and there was a midwife and there was... I can't remember what else... there was a physio, and the midwife was downright rude about it. She said, 'You don't do that!' and I said, 'Excuse *me*, but we do! And if you actually knew what we do... Come in and see what we do and then you might not send some of the rubbish requests you send.'"

Donna suggests that the social expectations of the prenatal ultrasound often leave the patient unprepared for bad news. "It's all this fallacy that, you know, it's all a lovely, happy scan," she says. "Well it's not always a lovely, happy scan! Yes, a lot of these where they go and pay privately after they've had the scan telling them everything; that's the nice, happy scan, not ours. Ours is a... well it's a screening test but it shouldn't be." Donna explains that, in her opinion, the second trimester scan does not fulfil the criteria for a screening test as the results are often normal. Because of this, she finds she has to create a balance between the social and screening aspects of scanning. In other words; she tries to create a middle ground where she can get on with her job and keep the patient happy at the same time. "They're just wanting to wave at the baby and know what sex it is," she explains. "So it's hitting that happy medium where they're happy but you're also doing your job. Because if we don't do

our job they're not going to be happy in the end."

A patient's personal, as well as social expectations may, Donna suggests, affect the way they accept bad news. The initial interaction with the patient, however, can usually reveal a lot about what their underlying expectations might be. For example, an unwanted pregnancy: "Usually you've got them in and introduced yourself and everything so you've got a bit of an idea," Donna says. "You chat to them and you ask them the history, and sometimes you just get that feeling that they don't really want to be pregnant." Donna's first impressions can also affect her approach to delivering bad news. "You get some patients in to the room and they just rub you up the wrong way as soon as you've called them in," she admits. "For some reason they irritate you and you've absolutely no idea why. Some patients I just think 'Ohh' and can't wait to get them out of the room, and then other patients you just love and, you know, you have a great chat with. So you do sort of get that idea, it's harder obviously with the ones that you don't like... you do alter towards your patients depending on how they are with you." Donna is essentially saying that her initial interaction with a patient can change the mood of the entire scan; sometimes positively, sometimes negatively. It is important, however, to understand how this mood might affect the way the examination progresses.

Intuition, according to Donna, can be a valuable resource. Sensing that a patient might not want to be pregnant, for example, leaves her keeping everything low key until she gauges from their response how to continue. "If I thought there was anything slightly iffy," Donna says, "I would say 'Do you want to see the screen?' And then a lot of the time they'll say, 'No.' And so you leave it at that. So you don't enthuse and say, 'Congratulations!' and everything." Intuition can also raise suspicions about an otherwise normal scan, and this may lead to the patient being re-booked. "Sometimes you just know as soon as you put the probe on," Donna explains. "You just think, 'There's something not right here,' and don't ask me how we know it because I've no idea, but you just know. You just get a gut feeling, you know, sometimes you scan a patient and you haven't seen the anomaly and you just get a gut feeling that there's something going to be wrong. And I don't know... I have no idea why, you know, maybe we're psychic!" Donna believes that her intuition is invariably correct. "More often than not, when we get patients referred back, when it's not clear cut, our gut feeling will be right whether it's ongoing or not."

Donna considers ultrasound consent forms, now used routinely in her department, to be an effective way of getting the message across to the patient that anomalies can be detected; particularly before a second trimester scan. She does, however, lament that despite the explicit warning, many of her patients choose to ignore it. "Although we now consent them for their anatomy scans," Donna says, "so they understand what we're looking for and that we might find something, you think it makes no difference what you do... tell them or anything. They're not expecting it." Another problem with consent, Donna suggests, is that ultrasound is simply not seen as screening. She says that women who opt out of screening believe they are merely opting out of amniocentesis, not ultrasound. "When the sonographers have actually questioned them," she says, "they don't want to opt out of us having a look at the anatomy and finding problems, they just don't want an amnio." Donna thinks that counselling the patient before the scan can be an effective extension of the consent process; a way of reinforcing the fact that problems can be detected, as well as missed. A significant factor contributing to missed anomalies, Donna points out, is high Body Mass Index (BMI), which can be difficult to explain to some women. "How do you tell the patient why we can't see anything?" she remarks. "Without saying, 'I'm sorry dear, but it's because of your fat!""

Donna suggests that the further on in the pregnancy a woman is, the harder it is to break bad news to her. "When they've got to sort of twenty weeks," Donna says, "you think, 'Oh god they've had no sign, absolutely no idea.' Whereas if they might have had bleeding early on in pregnancy they've got sort of an idea that something's not quite right." Here, the patient's perceived expectations play a role. The longer the pregnancy has continued, Donna thinks, the less likely it is they will suspect that something can go wrong. "Worse still are the thirty eight, thirty nine weekers that, you know, died in-utero," she continues. "And they're expecting, in a couple of weeks, this baby, you know. They've got the cot and the things at home and you know damn well that it's just absolutely devastating. They're the ones that I usually cry with because I just hate it. Normally they've been told already and we're just confirming it but it's still horrible."

Some anomalies can be ambiguous and leave Donna facing difficult questions. "If the

patient says, 'Is the baby going to die?'" she explains, "You've got to truthfully say, 'I don't know,' because often you don't." This can make breaking bad news exceptionally difficult. "You say, 'This is what I think it is but they may decide it's not," Donna continues. "They may decide it's something else.' It's quite a grey area for that one and that's the hardest news to break, one where there's... you want the patient to know there's a problem but you're not really sure yourself what the problem is." Earlier in pregnancy questions can be easier to answer, or it may simply be a case of waiting to see what a follow up scan reveals and inferring either a good or bad outcome depending on the circumstances. "I would say to them, 'We're going to give the benefit of the doubt and do another scan,' but, you know, 'I don't think things are going to be good news but we will do another scan just to confirm that,'" Donna explains. "I don't want them getting their hopes up over the week thinking, 'Oh it's going to be alright,' and then it's not the next week."

Donna says that breaking bad news is easier when she has never met the patient before. "It is easier, in a way, that you don't know them personally," she says, "because you are the professional and you can just give that news. You try and give it the best way you can, the most empathic way you can, but it's still not somebody you know." Here Donna indicates that having no emotional connection with the patient allows her to adopt a more 'professional' persona. It makes breaking bad news less stressful. The reverse is also true, of course. "If it's somebody you know," she explains, "it's a whole different ball game. Because you see them all the time, and you think, 'God, did I do it right?' You know, 'Are they going to blame me?'" A

connection, however, does not have to arise from a long standing relationship; it can be formed relatively quickly and depends on how *involved* Donna feels with the patient. "Some people are really nice," she says, "and often they've told you their tale when they've had, you know, eight miscarriages and they're going to try for one last time... that's awful. You know, you just think 'Oh god, how can I tell them this?""

Breaking bad news frequently, on the other hand, can make it seem more routine. In the early pregnancy clinic, for example, Donna suggests that giving bad news can sometimes be difficult to judge because examinations are fairly quick and abnormalities are common. "It's often the first time you've seen this patient," she says. "If you've had a really horrible list and it's your sixth patient that you've given bad news to… are you going to do it better? Are you going to do it worse? Will it just sound matter of fact because you've done it that many times that morning and it just feels like your on a tape recorder?" Perhaps the shock of finding an anomaly, during a routine prenatal examination, is what initiates a level of emotional engagement which, I suggest, might be required for delivering bad news in a genuinely empathic way; without that shock it simply becomes routine. Donna emphasises the fact that how bad news is given depends on many factors, least of all how 'good' someone is at doing it. "I don't think anybody's better than anybody else," she says. "It depends on the moment, the patient, how you're feeling, how stressed you've been beforehand, you know… Breaking bad news is never the same twice."

Donna talks more about the moment of discovery. "As soon as you see something

your heart sinks," Donna says. "Some of the sonographers go very red... up their necks." This shock has a significant effect on the way she scans. "You just sort of go into automatic mode, you just know what you've to do and you'll go through everything and look through everything," she explains. "You're trying to concentrate on scanning but also formulating in your mind how you're going to say things to them and make sure everything else is OK." Donna realises that her change of scanning style might alert the patient to the fact that something is wrong, so she tries to keep the situation moving forward by warning the patient. "I tend to say, 'I'll just be going quiet for a minute because I need to concentrate on this area," she explains. "You do try and keep everything going... We still talk to the patient."

Finding an abnormality always leads to obtaining a second opinion where Donna works. This has a two-fold effect: It can be an obvious sign to the patient that something is wrong and it may also prepare them for bad news. "They always know if you get somebody else in," Donna explains, "because you've usually said, 'There's something I just want somebody else to check on.' So they often think, 'Mmm'... it starts the cogs whirling." Getting a second opinion has another advantage apart from confirming a diagnosis: It can give Donna time to think about what she needs to do. "You might just go and look in the book and check that there's nothing else you want to look at before you actually go back in."

There are certain standard phrases Donna might use to deliver bad news. "You have a sort of a set thing," she explains. "You do deviate from it, obviously, depending on

what it is but we usually say, you know, 'We've found something on the baby... Things are not looking quite right." Donna believes that the information given to the patient must be clear. "If you say, 'Oh it's not been growing,' they think, 'Oh it might grow a bit now," she explains. "Or, 'There's no heartbeat,' they might think, 'Oh there might be a heartbeat later on.' But if you say, 'Unfortunately the baby's died,' then there's no question." After this, Donna controls the flow of information to the patient. "We go on how much the patients want to know, because some of them don't really want to know anything," she says. "They just really want to get up and go. Others want to sort of say, 'Well what is it? What does it look like?' So you can show them. A lot of patients find it better if you can show them what the problem is." Visual confirmation of an abnormality sometimes helps the patients understand the information better. Donna also prepares for occasions where patients may want that confirmation after the actual event. "We always try and take an image if there is an actual foetus there," she says. "We try and take the image so that if they want it at a later date we keep it in the notes so that they can have it. People grieve in different ways, some want it straight away and others want it later."

Donna responds to the patient according to how they initially react to bad news. "The most normal reactions are for them to cry," she says, "but some of them just go hysterical and they're quite difficult to deal with because they frighten everybody else in the department. You can hear the hysterics through the doors and everything." Here Donna suggests that there is a 'normal' reaction to bad news. An excess of emotion can be difficult to deal with, as can too little. "The quiet ones are the ones where you
really don't know whether they've taken it in," Donna says. "You don't know what they're going to do. You don't know whether they're just going to collapse somewhere down the line." One scenario that particularly strikes a chord with Donna is when men get upset. "Women crying I can cope with," she says. "If the men break down I find that really... that's usually when I cry, when they start, because it's not a usual thing for a man to do, and if they get really heartbroken it's horrible." Again, this illustrates that anything outside of the 'norm' can be somewhat stressful for Donna.

For quieter patients, Donna tries to re-iterate the information until she is happy they understand it. "We've found that half the time - when we are breaking bad news - they only listen to about fifteen percent of what we're actually saying," she explains. "So we try and sort of re-iterate and say, 'Do you understand what I'm telling you?' And try and get them to say it back to us. 'It's got this, this and this and we're going to do this...' So at least you know they've understood what you've said." Donna concedes that pre-empting a patient's reaction is virtually impossible, mainly because of the different perceptions people have of what actually constitutes bad news. "We've had patients where part of the [baby's] arm is missing and to them that's like you've told them that the baby's died," she says. "And you think, 'it can manage without part of its arm.' So our perception of bad news is not always the patient's perception of bad news."

Following bad news Donna tries to give the patient time to take everything in. "We do

try and give them as much time as possible to sort of stay in the room," she says. "You know, we'll stay with them for a bit and then we'll say, 'We've got to go and do the report now, you can stay here... or do you want us to take you round to a quiet room in the antenatal clinic?' Often they say, 'Well, we'll stay here' and then we'll take them round and as I say, somebody else will take over." Handing the patient over to someone else, in Donna's view, can keep them moving forward through the experience. It can also help them to absorb what they have been told. "We get one of the midwives to come and take them into a quiet room and they're always seen by a doctor," Donna explains. "So there's not just us telling them the bad news, there's often a midwife also telling them and then a doctor after that telling them. So they do get a chance to listen to everything."

Donna finds it difficult to gauge whether breaking bad news has gone well or not, and often reflects on it afterwards. "You go away and you think about it later," she says. "Should I have said that to them? Do you think they listened to that or could I have done that better?" Auditing patients' reactions, Donna suggests, would be useful, but virtually impossible to do. "If you start sending the questionnaires about how the news was broken they're going to say, 'Stuff it!" she points out. Occasionally patients write letters, but generally in the form of a complaint, which, Donna says, usually stems from their pre-conceptions of the scan. Many centre around a perceived lack of communication from the sonographer. "We tend not to get that many complaints about our breaking bad news," she says. "It's more to do with their expectations; they want a show really."

One way Donna tries to assess how breaking bad news has gone is to talk to a colleague, especially one involved in giving a second opinion. "We always talk about it," Donna says, "We'll say, 'Oh that was awful,' and 'I really didn't like doing that,' and, you know 'How could I have done that... could I have done that better?' Because often the other person's in the room." Talking to colleagues is also a way of maintaining social support, which, Donna suggests, is invaluable to both her and the sonographers in her department. "The seniors definitely help out the juniors and the juniors help out the students, and the seniors help each other out," she says. "So there is a big network of support here." Social support invariably extends outside the department too, as Donna explains: "We're a sad bunch, sonographers, you know," she says. "Whenever you go anywhere you always find other people who do it and you always end up talking about work. You know, we'll go out for a meal and we'll end up talking about work and what's going on. And you do, you share things and certainly if we've had a bad experience breaking bad news there's always somebody to talk to about it."

Learning to break bad news is, according to Donna, something that students simply have to immerse themselves in. They have to spend time in the department and work closely with the more experienced sonographers. "We take on our own students so we know that they've been taught in our ways," she says. "They sit and listen to how other sonographers break bad news and they tend to get bits that they think are good from each person." In Donna's opinion, breaking bad news is not something that can be broken down into rules or instructions. "I don't think you can protocol it," she says. "You wouldn't get a protocol out in front of a patient and say, 'Oh I've got to do this, this and this.' And no two patients are the same so you'd have to deviate from it straight away anyway." In Donna's opinion, training courses that promote honesty may be useful; the Antenatal Results and Choices (ARC) course, for example. "That's where we've taken a lot of our incentive from in how we tell them," Donna says of the ARC course. "In that we tell them straight away, and be honest. Most of the patients, all they want is honesty." Other courses, that fail to reflect the unique situation faced by sonographers, are considered by Donna to be of little or no value. "I went on an in-house one," she recalls, "which was absolutely useless because it was about breaking bad news to cancer patients."

5.2.7 Nicola

I went to visit Nicola in August. She works in the ultrasound department of a recently built hospital providing a clinic to several towns in the surrounding area. Nicola has been a sonographer for over twenty years and is now leading her own department. When I arrived she was busy sorting paperwork out and taking calls. I sat in the waiting room until she was ready. The interview took place in Nicola's office; she stuck a hand written do not disturb sign on the door and we sat and chatted next to her desk. Three hours later we had finished.

Nicola describes the early, pre-disclosure days of scanning as having no control over breaking bad news, viewing her position at the time with a degree of ambivalence. "It was a terrible situation because the patient would know there was something wrong," she says. "I felt glad that it was somebody else's problem to deal with but it was also quite frustrating that I couldn't step in." Nicola is glad that she is currently working in an era of disclosure and feels her position as a sonographer allows her to break bad news effectively. "I feel I'm the best person to do it," she says. "I feel I can deliver that news as well as anybody else could." Nicola contrasts this with the often insensitive way that bad news was handled in the past. She remembers one particular consultant: "He was just, 'What's all this about? What's going on in here?" Nicola recalls. "And he said, 'Show me what you've seen on the scan.' And so I showed him the pictures and he said, 'Oh yes, that's *gross*.' I was cringing."

Nicola despairs at the fact that the majority of her patients are not being consented by their midwives prior to the scan, and that sonographers are having to take on the responsibility for doing it. "It should be given to them by their midwives when they're booking in for antenatal care," she says. "I always say to people, 'Have you seen your midwife yet?' And if they say, 'No, I've just got my appointment through the post, she's going to see me later,' then they haven't been informed and they haven't consented."

Connecting with the patient at the beginning of the examination is important to Nicola because she realises that each patient has their own perspective on the scan, their own expectations of what it can do, and their own reasons for being there. "I try and have that couple of minutes to just try and... it's only a minute or two, but you just try and judge, 'Is this patient here because they're very excited and it's good news?" she

explains. "There are just some patients that you think... it's this instinct thing, you think, 'Hmm I'm just going to be careful with this one.' You can just feel it and I think you adapt how you interact with the patient with that." Occasionally, Nicola's first impression can alter her attitude towards the patient and may change how she approaches bad news. Difficulties can arise from prior encounters with patients. "You see their name on the list," she says, "and you go, 'Oh look who's coming today. You can do her, I'm not doing her, I did her last time... she's a nightmare.' You're already thinking, 'I'm having nothing to do with this patient... I'm just going to do the scan and I'm going to finish.' And yes, you could be detached. You could detach yourself from that kind of patient. As to what happens when you find an abnormality with that type of patient... maybe it is easier, I don't know."

Nicola is always prepared for bad news, from the constant possibility of it occurring to the practicalities of having a box of tissues on hand. "You're always slightly prepared for it because it's part of the job," she says. "But you don't know which patient it's going to be." Despite being prepared, Nicola can often be taken by surprise. "You think, 'I can deal with anything today because whatever happens I'll just deal with it,' and you know, 'I'll just do it,'" she says. "And then you'll get a really lovely patient in and you have to give them bad news and they're so upset, you know, and then they start telling you how nice you've been dealing with it and I end up being in a right state. I don't mean I lose control, don't get me wrong, but I do I get quite emotional you know. And then they start apologising for upsetting me and then I think, 'I wasn't… I didn't think this was going to happen today. I was totally not in

this mood... didn't feel particularly vulnerable.' But, you know, something just gets to you, you know, and it's quite reassuring really because you think, 'I am human.' I can do my job in a detached way when it needs but you just poke the right bit and I think 'I am obviously still human.'" Nicola is expressing the fact that underlying every patient interaction, no matter how prepared she is, or how detached she thinks she has become, there exists a genuine empathic bond. It just takes the right circumstances to reveal it. Nicola also suggests that her interaction with the patient changes her mood, or more specifically, the mood of the scan. When Nicola experiences an emotional connection with the patient, she sees it as revealing her human side. Her professional persona, on the other hand, is seen as more detached and in control. "I do try and get across to them that I'm a professional," she says, "That I know what I'm doing. Hopefully I'm able to, you know, deal with whatever information I need to be able to give them."

Nicola always begins the examination by offering the patient a clear explanation of what will happen, particularly when she is about to perform an anomaly scan. "I explicitly say, 'This scan's going to take longer today so I'm going to be spending longer looking at the screen before I can show you the baby," she says. "And the main things I'm going to be looking...' and I do a very short list." Following this, Nicola's initial connection with the patient is temporarily put on hold while she gets the technical aspects of scanning underway. "I contact with them when they first come in - get that bit done," she explains. "And then say, 'Right I'm going to have to leave...' You know, 'Look at the screen now and get the scan done and then I'll come back to

you at the end." What this suggests is that Nicola separates the technical aspects of the examination from the social, or interactive 'patient' side. She appears to be describing a movement from one to the other, as if she has to leave the patient in order to scan and then return to them when that part is complete. There is a clear division, in what Nicola says, between the technical and human aspects of the examination.

If Nicola's patients are anxious, she respects this. She avoids trying to promote any kind of social atmosphere before she is absolutely certain that the pregnancy is normal. "I do try and put them at ease," she admits. "But I never try and create a light hearted mood, certainly not before I've seen that everything's alright." If patients are excited, however, Nicola feels that reducing their levity helps her to take control of the situation. "People come in very excited, it's a day out," she explains. "We've been waiting for this for days,' they say. 'The kids are so excited,' and sometimes to have to come down from that it's... you've got to gradually say, 'Right OK! Well we need to be serious now because I'm going to start looking at this, I'm going to start looking at that.' And you just have to slow everything down, you know, because you can't suddenly go 'Oops!'" Nicola still wants her patients to feel involved and so avoids quelling their enthusiasm entirely. "I would hate a patient to say, 'Well I didn't feel part of it,' or 'my husband didn't feel part of it," she says. "A lot of patients, as soon as they come in, they're asking questions... That's a good sign. They're involved, their very into the pregnancy." Nicola infers that creating a neutral mood helps her to start the scan. She suggests that an anxious patient may be slightly prepared for bad news, whereas an excited patient may not, so when the possibility of bad news is still unknown, a state of tentative expectation on the patient's behalf is probably beneficial. Bringing the situation under control prior to starting the scan is, for Nicola, a way of creating a middle ground between anxiety and excitement. She slows everything down and this allows her to 'leave' the patient momentarily so she can get on with her job.

Despite years of experience, Nicola finds that the discovery of an abnormality still comes as a shock. "It's a horrible feeling, it's a sickening feeling no matter how many years you've done it," she says. "God, I could get upset even thinking about it because it's so real, you know, and your wishing it... you can see what you're looking at and you're wishing it to go away." When an abnormality is evident Nicola chooses not to tell the patient immediately because she wants to perform a full investigation without being distracted. "You have to decide what your opinion is of the scan, make sure you've got it," she says. "Then stop scanning and then turn to the patient and address the patient and give them your full attention." Focusing on the patient this way can often be enough to communicate bad news. Nicola remembers one particular case: "I put the probe back down and I turned to look at the patient," she recalls, "and as soon as I did that she looked at me and I said... and I must have hesitated just for a few seconds... and so she said, 'You're going to give me bad news aren't you?' And I said, 'Yes I am.'" In cases of foetal death, the short period between discovery and return can minimise the period of investigation and this can be something of a relief for Nicola. "They're the short, sharp: you put the transducer on, there's no heartbeat, that's it," she says. "So that's the end of the scanning and the focus goes completely

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on to the patient."

Nicola suggests that patients' reactions can be highly unpredictable and gives several reasons: "You'd have to really fully know the patient's history, their social history, their family history, their obstetric history, is it a wanted pregnancy?" She explains. "You'd have to have all of that information before you could know one hundred percent whether something that you think is going to be bad news is actually going to be well received." Nicola, however, does not have all this information at the beginning of a scan and often has to rely on intuition. "A lot of the time you've just got to play it by ear haven't you?" she suggests. "You can't predict patients' reactions. The unpredictable is the patient's reaction you see."

Nicola suggests that certain patients can make the job of breaking bad news harder. "There are some patients who do make the task very, very difficult," she admits. "For whatever reason. It's not deliberate, it's just the way it is. It's just the type of person they are." She remembers one particular lady. "She jumped off the table," Nicola recalls, "and she said, 'Go and get my husband, he's out in the waiting room, go and bring him in here now!' So I did, and she flew at him. 'This is your fault, you've done it again, you're giving me deformed children!'... I was pinned in the corner and I didn't have a clue what to do, and it was dreadful. And it was like just watching a scene being played out... this awful rant going on between the two of them."

Nicola points out that it is difficult to judge what constitutes good or bad news, and

finds some patients' reactions surprising. "You think, 'Oh gosh, I'm about to tell this person something really awful. How are they going to cope?"" she says. "And they're just, 'Oh right, OK.' They just go, 'Yes, yep fine, what happens next?"" She exercises particular caution when giving seemingly good news. "To some people it's devastating if you tell them they're having twins," Nicola says. "Absolutely devastating, because they've no idea how they're going to cope. They're single mums, it's an unplanned pregnancy, it's the result of a relationship which was just, for whatever reason, not right; completely wrong, and they're already in a bit of a state because they're pregnant. It's the worst possible news, so you have to bear that in mind." Each patient's situation is different and their reactions to any news about the pregnancy can be difficult to gauge in advance.

As she gives bad news, Nicola allows her emotions to show but keeps them under control. "I mean if I get upset with a patient I don't, you know, I might get a bit tearful and patients notice it," she explains. "I don't know if they think it's good or bad. I never lose control of the situation and hopefully they see it as a good thing rather than a bad thing." In the intimate environment of the ultrasound examination room, Nicola finds it hard to be detached. She suggests that it also makes physical contact with the patient easier when breaking bad news and this can often be of some comfort. "You're sitting right next to them, you're in close proximity at the point that they're getting upset," she says. "And you can hold their hand, you know, and you can touch them if they want to be... some patients want to sit up and hug somebody and you're there to do it." When empathy is reciprocated this can heighten Nicola's emotional response. "I've had patients get really upset," she recalls, "and say to me, 'This must be awful for you, this must be so awful for you giving me this news.' And then that gets me all upset then, which is a bit reassuring because you think that after all the years of doing it I haven't become hardened to it."

Nicola describes having children present when an abnormality is detected as an added emotional burden, but one, however, she is willing to face. She remembers one particular patient: "Two beautiful girls came in the room with her and her husband. And it was bad news again," Nicola recalls. "She turned to these two girls and she said, 'Mummy's got bad news for you,' and this child said, 'Oh no, don't tell me the baby's dead.' And she was sobbing this girl, really... [becoming tearful] you can tell how bad it was... and these two girls were crying their eyes out. So obviously I got upset. Obviously." Nicola suggests that some sonographers try to avoid having children present during a scan because they find the situation of giving bad news when they are there too stressful. "They say it's too upsetting for the children," she says. "It's more likely to be that the sonographer doesn't want to have to deal with it because it is, it's very difficult."

Having a history with a patient can also make breaking bad news harder for Nicola. She remembers one patient who was expecting twins: "I said, 'How many weeks are you now?" Nicola recalls. "'Twenty eight weeks,' she said. 'If I can just get to thirty weeks they're going to deliver me early so we'll be alright.' And I scanned her and they were both dead. That was awful. That was absolutely awful. This poor girl. Because I felt I knew her by then because I'd scanned her so often...I sat with her for ages and she was obviously very upset and I was upset too. And we sat there in the room together while we waited for the doctor to come and speak to her."

After breaking bad news Nicola tries to provide a level of support for the patient so they are not left feeling isolated or alone. Taking them to a quiet room while she makes a referral for further tests or contacts their midwife can help. "I bring them in this room if it's empty," she says, "and I say, you know if they're not too bad I say 'There's a phone there if you want to use it. If there's anyone you want to call just use the phone, you know, bring them in. I'll give you a few minutes and then I'll come back. If you want me to stay with you I'll stay. If you want a few minutes to yourself then that's fine as well.' So you just have to play it by ear really. You know I couldn't teach somebody how to deal with it because there aren't any rules." How Nicola supports the patient depends very much on the situation and is not something that follows strict guidelines. Patients often do not know themselves what they need at the time and so Nicola tries to remain supportive even after they have left the clinic. "I always give them my number and my name," she says. "I don't know if the other sonographers do, I don't know. But I always say 'If you get home and there's something you wish you'd asked me just call back. Just ask for me, you know, and I'm here all day.""

Having a supportive environment helps Nicola through the process of breaking bad news. "I can't imagine not having that structure around me," she says. "Where you really need your colleagues to not just to help you deal with the situation, but to recognise when you're particularly upset and you just need a few minutes to go and sit and calm yourself down." Often, when Nicola thinks she is coping reasonably well after giving upsetting news, and feels ready to take the next patient in, a colleague will often be on hand to help. "She completely took control of me, and I'm, I'm the one in control here," Nicola remembers. "Maybe I thought I was alright, but she said, 'No you're not. Look at the sate of your face, go and sort yourself out.""

Nicola often wonders how patients have coped once they leave the clinic following bad news. "You deal with it at the time, you carry on with your day's work and then you go home and you think," she says. "You have time to reflect on your day and you think 'I wonder how that couple are, I wonder if I did that the right way, if I made a good job of it?" Particularly poignant cases of breaking bad news stay with her for some time. "It's strange really because it's such an intense environment and then you never see them again," Nicola says. "I can remember so many of them especially... Some patients you never forget, never forget, and I think the breaking bad news scenarios particularly stick in my mind. Especially from my first few years in ultrasound because that's when you're learning the most and that's when it's more unexpected."

Nicola tries to balance out the stress of breaking bad news with the positive aspects of being an obstetric sonographer. "There will always be times as a sonographer when you think, 'Oh do you know what? It's not worth It,'" she admits. "Why go through all that hard work, that intensive training, to do obstetric ultrasound? But there will be other times when it's actually very rewarding in a way that's hard to describe because if you know that you've done the best you can and especially if a patient comes back and thanks you for how you've dealt with it and they say to you, 'God I can totally appreciate how awful that must have been for you and you dealt with it really well and you've been really kind.' It's actually quite rewarding that from a professional perspective." Apart from direct feedback, Nicola suggests that it can be difficult to gauge how successfully breaking bad news has gone. "How do you audit how well you're doing your job?" she asks. "You don't do you? You just hope for the best... A lot of it is your own personality, your own perception."

Nicola despairs at the fact that complaints and litigation are driving sonographers out of the profession. "It can be such an effort sometimes to really do the right thing and behave in the right way with some patients, and it can be a bit of a thankless task at times you know," she explains. "I can see why people have said for all that effort I've put in it only takes one claim, you know, coming in against the manager and they say, 'Oh I'm not doing this any more.' It's a sham isn't it really? I always say at the end of my scans, always, I always say, 'You do know that no test can ever be a hundred percent.' I wish I could put that in writing and get people to sign it: *Yes I understand that it can't be a hundred percent*." Apart from what she believes are the patient's incorrect preconceptions of ultrasound, complaints, in Nicola's experience, usually arise from the way patients feel they have been treated by the sonographer. "The complaint will never ever be about criticising your skills, your ultrasound skills," she

says. "Because they don't understand what's expected of you there. It will be about how you've spoken to the patient, how you've interacted with them, how you've made them feel, how you've not included them, how they don't feel as a person unique in that situation, or they feel they've been rushed for time."

Nicola feels a lack of appreciation from those outside of her profession. "I really think it's a unique role, and there will always be people who will find it easy to criticise as to how you do it," she says. "Radiographers say to sonographers sometimes, 'Do you tell the patients when something's wrong? You know, do you deliver bad news?' And I say, 'Yes.' And they say, 'I don't think you should have to do that.' I don't know what they mean by that. I don't understand what that comment means: *I don't think you should have to do that*. Does that mean that they're suggesting that we're not capable of it?"

Nicola admits, however, that choosing to pursue a career in ultrasound has much to do with personality. "You could look at it and say that's a very strange transition to go from radiographer to being an obstetric sonographer," she says. "I think people that go into ultrasound, they really want to do it. There are reasons why they want to do it, you see I really like the interaction with the patients. That's why I did it. I didn't want to be an automated, stand behind the screen doing the buttons." Nicola suggests that obstetric ultrasound requires a sonographer to be involved with people, and not only that, but they have to be the type of person that likes that kind of interaction and can cope with it even when it is emotionally difficult. If someone does not have the right personality to be a sonographer, she suggests, they are probably not going to last very long in the profession. "I know a sonographer who – a student over in the teaching hospital where I worked for a long time – and I trained her to do ultrasound. A very bright girl, really bright, academically very, very good. A lovely person actually, and as soon as she qualified and she started scanning on her own she just, she couldn't cope with the obstetric scanning," Nicola remembers. "She just came to me one day and said, 'I can't do it, I'm giving up ultrasound.' And she did, she dropped ultrasound altogether. I was really shocked."

For Nicola breaking bad news well is something that can only develop with experience and is not something that can be taught particularly successfully. "As far as teaching it, providing guidelines... I don't think anything can replace the experience," she says. "There have always been optional courses available; counselling, breaking bad news. But the environment of how it's taught and who's delivering it, I don't know if it's something you can... how do you translate that from a classroom to actually doing it in the real world?" According to Nicola, the best way to learn how to break bad news is by doing it. "All you can rely on, from my personal experience, is how you feel at the end of the day after it's happened," she advises. "You've got to take it in the right way, you've got to learn from it. You've got to them. It's not always the bad news that's the bad news it's the way you've given it to them."

5.2.8 Carol

I met Carol at her home, and immediately she made me feel very welcome. She gave the impression of being well read and having a keen interest in research related to her profession. Carol has worked in ultrasound for more than ten years and been based at several hospitals. She finds people interesting. When you are talking to her you know you've got her full attention. I imagined she was like that with her patients too. We sat and talked about breaking bad news over several cups of tea as the afternoon passed by outside.

Carol emphasises the importance of "setting the scene" at the beginning of the examination. This, she says, provides an opportunity to both prepare the patient for the possibility that bad news may occur and allay any fears they may have. "I'll always introduce myself and I'll say that I will go very quiet when I'm scanning, although I'll try to lighten it all up," she says. "I always say I'll go quiet and there are two reasons for this: one is to allay fear, and the second is to focus their mind that there might be a problem, and that I'm looking for a problem. Although my choice of words is that I'm looking for 'normal' things, we are inferring that there might be an abnormality." Carol prepares the patient at the very start of the examination with her choice of words. She tries to remain upbeat, but at the same time infers the possibility of an abnormality occurring. She tells the patient she will go quiet, so that when she does, they will not be alarmed. Carol is essentially putting the patient in a state of tentative expectation which will hopefully ease the process of breaking bad news, if it occurs, later on.

For Carol, scanning is just as much about entering into a relationship with the patient as it is about finding abnormalities. "I feel I'm very much part of this experience she is having and I am... we are in this together," she says. "And I'm looking at it for her. Every lady is different and you sort of get involved differently." Carol acknowledges that her relationship with each person is unique. "There can't be a standard way of breaking bad news," she explains, "because every patient is different." She describes the scanning environment as conducive to forming quick and intimate relationships that would not otherwise occur. "With scanning you're in a room, in a dark room, and you're in your bubble with this person," she explains. "You are very close to the person, you're sitting touching each other, and... I actually sit so that I'm touching the patient... I think as soon as you start touching somebody you start becoming part of their bubble and they start then telling you a lot of stuff in the scan... Can you imagine saying to a stranger, 'My husband is a drug addict, and he's been in jail... and he's a window cleaner?" Entering into a 'bubble' with the patient has, for Carol, both advantages and disadvantages. One advantage is that the bubble opens up a space in which genuine emotions can be shared, and this can often be seen as a benefit. However, it also makes the information giving aspect of the encounter more difficult as the latter requires a degree of detached rationality. "For someone like me who totally becomes in the bubble," Carol says, "I have to separate, and it becomes so hard for me to separate myself from this person."

Finding an abnormality changes the flow of the scan for Carol; it takes it to another dimension which requires concentration and inevitable periods of silence. "You start taking it to a level two scan," she says. "Where you start extending your scan from just the general scan... You start looking for features, and then because you're looking for features you start to go quiet... and the ladies are quite anxious... and you don't want to be relaying your anxiety to them." But Carol has already warned the patients that she will go quiet, so she feels that silences should not necessarily be a cause for concern. Carol can relax a little and this gives her more time to prepare what she is going to say. "It gives me time to collect my thoughts as to how to break it in a better way," she explains. "And then I'm pre-empting the questions she might ask me." Carol, however, refrains from talking to the patient at the moment of discovery to avoid delaying the intense period of the investigation. "Once you start getting into dialogue then I think it sort of delays your scan," she suggests.

Carol describes the way she discloses information in terms of constantly preparing the patient and anticipating their questions. Having up to date knowledge, in her opinion, is an essential part of making this process effective. She gives an example of explaining about choroid plexus cysts (CPCs). "Preparation is very, very important, and you need to have very up to date information about what's happening," she says. "With CPCs, the way we deal with CPCs now is... I don't use the word 'cysts' because the choice of words is very important. I say that it's a fluid filled area in the head and this fluid, it's part of every baby's development, it keeps the pressure within the head normal.' So that's saying it's normal because the majority of the literature says it's normal. So I'm setting the scene. 'But it can be associated with a chromosome abnormality.' And now I'm pre-empting the question and I'll say that it

is a chromosome abnormality which can have learning difficulties, but sometimes they are associated with hand and feet abnormalities. I'll say 'I've had a look, I can't see it, so it's pointing more towards...' And then I'll start giving them the numbers and say that it's usually one in a hundred."

Initially focusing on the positive aspects of any finding is a way that Carol often eases into the bad news. "I always start with the good news," she says. "And then I say the bad news, because I need... because then they don't focus on the good news." Giving the good news first ensures that the bad news is not dismissed or overlooked by the patient. In addition, Carol suggests that the bonding aspect of the scan is important even though bad news has occurred. She describes bonding as something that involves everyone, even her. "It's not just about baby bonding and the mother," she explains. "It's the fact that you become part of the bonding process… You can liken it to the doctor - the GP - who's very good and gives you the right medication, but you come out feeling like, 'I never had a consultation.' I feel the doctor is the medicine…. the sonographer is the scan."

As bonding is an important part of the process, Carol encourages patients to have someone with them, even their entire family on occasion. However, when bad news has to be given she gives the patient the option of whom they would like to stay with them. "If I see an abnormality and there's everyone in I just say, 'I've seen some things on the scan which I need to speak to you about, do you want me to speak in front of everybody?" she explains. "I give her the option and usually if there are children there, they send the children out." Carol suggests that having someone else present when she breaks bad news to the patient can not only provide them with support but help her relay the information more successfully. "I encourage somebody to be there," she says. "Because sometimes when you're experiencing, from a personal aspect, you hear or listen to what you want to hear, and what I do, is then I speak to the husband or the partner, or the mother who's come in and I'll just say, 'Have you understood what I've said?' And not just to the lady but also to the other person so that they can understand fully what's happening."

Carol suggests that her personality lends itself to obstetric scanning and that personality is integral to any sonographer's role. "The personalities of those doing the scans are very important," she says, "because some of us are more... I like to... I'm tactile, I like to touch people, I like to get involved with them, whereas some people who are very, very... are just equally as good... they just get on with the job." Although getting involved with patients has its emotional highs and lows, Carol describes it is an essential part of making the patient feel valued. It also helps her cope with breaking bad news. "I think if you become part of the process, then breaking bad news becomes easier," she says. "Not easier, it becomes more acceptable. If you are not part of the scan, and if you've detached yourself, and you're doing a good job, the customer or the patient has to deal with their own emotions... and then you are a stranger. And if you're part of the scan you don't become a stranger, you become somebody part of the process, and it becomes easier."

Carol feels that a "detached" manner can sometimes attract complaints from patients. "We have a certain level of experience and a certain level of education to scan," she says. "But the people who detach themselves, and are very good at their job, and they will not miss an abnormality, they are the ones who actually get the complaints. They get a lot of complaints." Carol suggests that sonographers who try to avoid getting involved with the patient find scanning more effortful, whereas she, on the other hand, finds it quite natural. "People who don't like it call it a performance," she explains. "They say, 'I will go and put some jelly and I will perform for them.' And because they're not comfortable about doing it, they feel they're doing it for the client and not for themselves. Then *they* feel uncomfortable... I'm performing naturally because that's part of my personality, and then I don't feel like I'm performing. It doesn't become stressful for me the majority of the time."

Although breaking bad news gets easier with experience, Carol suggests that emotionally it never changes. "It becomes a roller coaster, it's very, very emotional," she says. "With experience it's got easier but emotionally I don't think I've progressed much. In fact I've got worse emotionally." This, Carol suggests, is not necessarily a negative thing as it highlights the human aspect of ultrasound. "There have been cases where I've broke down," Carol admits. "Some of the crying is so heartbreaking that you start crying too and I feel... in the past I used to feel that 'I'm the person giving the news and I'm the professional, and I shouldn't cry,' but there is no way you can't cry and you start crying as well and I've had a few letters where it said that it helped them... not 'helped' them, it just made... it, we... at the end of the day we're human and I think that crying helped her and it helped me. Although I try and avoid the crying, you know, if I can." Here, Carol suggests that acting within the confines of so called 'professional norms' may not always be the best option. When she describes acting outside of the norm, she views it in a positive light. For Carol 'doing everything wrong' means involving herself in the patient's experience to the extent that she may not remember exactly what she did to help them. She recalls one letter that a patient wrote to her: "She said that, that although it was bad news, what I did was that I held her hand while I was giving her the bad news," Carol says. "I don't remember doing that." It would appear that Carol's level of involvement had enabled her to respond tacitly and unconsciously to the patient's needs.

Carol suggests that it is often difficult to gauge when bad news has gone well. "The only way that you know it's gone well," she says, "is when we've had some sort of feedback off the patient like a letter. They'll write a little letter to say, 'Thank you very much for having looked after me, I know you gave bad news but the way you handled the news helped me cope with it.' But not everybody writes that letter back so you don't know... you never really know whether you broke the news well."

Carol's own feelings about breaking bad news can vary from one patient to the next. "We don't know how they're going to take it and sometimes it's shocking for us when we see it," she admits. "Because we're human beings at the end of it. And if you're a parent, as a sonographer, it becomes... you're dealing with your own feelings in breaking the bad news to the patient." Moving on to the next patient can also be difficult after giving bad news. "I think when you've had an abnormality, then that sort of puts a dampener on the whole day," Carol says. "But, you know, you've got a short time so you try not to affect the next scan." One way Carol copes with an emotional bad news experience is to talk about it with someone. "I remember for ages the crying, it just gets to you," she says, "but we sit down at lunchtime or whatever, we try and cope. And I might actually come home and I'll speak about it as well because it stays with you." Carol also tries to balance the negative aspects with more positive side of scanning. "What also stays with you," Carol explains, "is that lovely, beautiful face you might take, you know, to the point where it fascinates you this baby...I can see the personality of the baby, you know, it's fantastic."

Carol emphasises the importance of having a structure in place to cope with the task of breaking bad news, and to always be prepared for the unexpected. "I feel it should be holistic... you need to understand a lot," she explains. "I think personality, education, experience, and taking into consideration personality of the client is very important. These are things which are pre-requisites to breaking the bad news. Setting the scene and then having a follow up, so that you can say this is the follow up but at the end of the day this is the standard. But sometimes it's like an accident, you never know when it's going to happen... when it's going to go pear shaped. You are assuming a lot of stuff there, but at least you've put a structure in place for something very emotional."

5.2.9 Sue

I met Sue at the end of her shift in a city centre hospital. We sat in the quiet room and talked for just over an hour about her experiences of breaking bad news. Sue had been working in obstetric ultrasound for more than twenty years, both in the NHS and in private practice.

The days prior to being allowed to disclose information to patients, were, for Sue, somewhat of a crusade. She felt that withholding information from patients depersonalised her role as a healthcare professional and left her as a target for complaints. "The patients would just think we were like robots and you would get loads of complaints like, 'Oh I didn't like her,'" she says. "We begged to be allowed to tell people. I wanted to tell them that 'your placenta's low and if your placenta's low we'll book you to come back and we'll check it again.' Stuff like that."

Sue suggests that the patient's social expectations of ultrasound can make breaking bad news difficult. "If they're just coming in for a dating scan they're all excited and looking forward to it, that is the worst kind of person that anything bad can be wrong with," she says. "Because, you know, they're psyched up to have something really good happen to them." For Sue, preparing the patient at the beginning of the scan is important. She tries to instil the idea that bad news is always a possibility. "It's really making sure that the person you're going to break it to is in that frame of mind where they're going to be able to accept it more easily," she explains. "If they seem too upbeat, then bring them down... and just start them with a little bit of worry, and I mean they won't have to worry too long if things are alright." Sue gives an example of how she might do this for a patient who has, perhaps, had some signs of early bleeding: "For the ones who are in a bit of a higher spirit, the ones who think that everything will be alright, I would say to them, 'Well you've had this bleeding and that's never a good sign in pregnancy.' To try and gradually make them think, 'Oh well, maybe things won't be alright.' You know, and that has an immediate effect on them. That's better than me springing bad news on them." Sue uses a psychological approach to prepare the patient for something untoward to happen. "You know, psych them up first to expect bad news," she explains. "And then it's fantastic if it's not... and then if it is, you know, they're already partially psyched up to accept it."

What Sue does at the beginning of the scan is try to 'level' the patient's mood, especially if they are too excited. In order to create the right frame of mind, she suggests, you have to engage with the patient right from the very beginning. You have to talk to them and listen to what they say. You have to look at their body language, try and work out what they are thinking and judge what mood they are in. "Look at the patient," she says, "make them aware that you're with them. I'll say, 'Oh, come in, come and have a lie down, I'm Sue, I'm going to have a look and see what's going on here today,' and, 'could you just tell me what's been happening to you?' I think that is a really, really useful thing. You're not ignoring them and you're not getting on with all the buttons on your machine, but actually saying, 'Well, what's been happening to you?''' Sue suggests that promoting a kind and professional image can gain a patient's confidence. In a short space of time it is possible find out a substantial amount of

useful information, but, Sue believes, it is not always what patients say that is important, it is how they act. "You have to sort of be receptive to what the person who's with you is going to need," she says. "You're looking at their body language because you can get all kinds of different responses. You can diffuse a lot of the tension if you actually know what they're thinking."

Discovering an abnormality, for Sue, is always unpleasant, especially if it is particularly serious. "It makes you feel sick if you find something really bad wrong," Sue admits. "You're sort of thinking about several things at once... 'How can I get backup? Don't go and get backup until you're thoroughly sure what it is yourself.' So you've got to be strict with yourself to sort of not fly off, and not tell them until you've actually interrogated it fully." Subtle anomalies such as soft markers require concentration and Sue is aware that accompanying silences may alert the patient that something is wrong. "You suddenly go off on a complete focus mode so they kind of get an impression themselves that there's something not quite right," she says. "You probably go a little bit more quiet, so sometimes you'll try to reassure them and say, 'Oh it's just been a little bit difficult looking at this because they can be in difficult positions." Scanning requires more effort during this phase, and is, according to Sue, more stressful than normal. "We have to think of more technical things like if this looks like this what should I be looking for?" She says. "You actually have to think about what you're doing as it maybe comes more naturally when you're not under that stress."

Ambiguous cases may necessitate a second opinion and Sue has a few standard phrases which allow her an opportunity to go and get some backup. "You just have to have a standard thing like that, saying, you know, 'Things don't look quite right here,'" she suggests. "What you would ideally like to do in that situation is get yourself away from them for, like, a minute... Maybe sometimes I've said like 'Look,' and maybe tilted the bed with the feet up to say, 'Look, I'm just going to tilt you here. I'm just going to get the baby down... let the baby come down with gravity and I'll just be back in a minute.' And then it just gives you that minute to go and get a bit of backup, so you know that backup's coming and then carry on with what you're doing. And I mean in a way, if they do become a little bit anxious it's probably quite a good thing in a way because then they're not... they'll start to think, 'This can't be right,' and then it's not going to be such a big, big shock when you say whatever it is."

Despite Sue's efforts to prepare patients, bad news still comes as a shock to most of them. "It's completely devastating," Sue says, "and there's nothing you can do, you can't really soften the blow." In cases of foetal death, however, Sue avoids using certain words. "We've tended to avoid saying the word 'dead," she explains. "We just say, you know, 'The baby's heart has seemed to have stopped beating and it looks like that might have happened a few weeks ago.' Just so they know that it's not now." With non-lethal anomalies, and if the patient is going to carry on with the pregnancy, Sue tries to deliver the news in a positive way. Having a pathway in place for the patient to follow can help them move forwarded and perhaps offer some glimmer of

hope. "You try your very best to describe what you've seen," she says, "and say, 'But we need that to be evaluated somewhere else,' where they just do nothing but ... in a tertiary centre where all the abnormal people, you know, abnormal cases go." This is where having been able to leave the patient earlier on and put some sort of support structure in place for them may have helped. Sue gives an example: "I had a really very abnormal baby, and there was just me there, and it was one of those nuchal translucencies," she recalls. "So I knew I could actually get... If I could just get rid of them for a small time, I wanted to put a whole network of things in place so that when they did come back. So I mean it wasn't a lie, the baby was in quite a bad position, so I just said 'have a cup of tea, have a chocolate biscuit... see if it will make the baby move in to a better position. So as soon as I got them out without them suspecting anything at all, I was able to then... well in theory, but it actually didn't work... get in touch with the screening centre, give them my results which - they already had the bloods - and they could give me a... But it didn't actually work because all the phone lines were down so it was like a day from hell.""

Sue suggests that her own reaction to giving bad news depends on the patient's reaction, which she gauges by comparing it to what she considers to be a 'normal' response. "There's a certain amount of emotion you're fairly happy with," she explains. "As a sonographer you think that's a sort of healthy amount of emotion, that's a healthy amount of being upset. And then there's the really upset ones and you think well that's fine because they didn't know that was coming. But there's some who just keep it all in like, 'I'm fine, OK,' like that." Although Sue is happy with a

patient displaying a normal amount of emotion, she is concerned when they are quiet. "I worry about that person," she says, "thinking... not that they haven't taken it in or anything, it's just that they're not having the right response and they're going to be holding it all in... holding it in in a bad way. And you think, well, probably I feel with people like that, that they might run away. Or they're in denial. You know, just for that time that they're in denial."

Sue likes to have something in place to keep the patient moving forward. Initially, a quiet room can be a valuable resource. "They come in here and they can be in here with their partner can't they?" She says. "Because you just want to get away from all that, but you still need to be looked after and you don't want to see anybody else who's pregnant and all that. So having this room is great." Sue admits that she is limited in what she can do to help the patient move on to the next stage of the process. "You can't just deliver bad news without something in place to help them, something else besides you," she explains. "You need something else because you can't send people home shattered and wondering what's going to happen next. It really needs to be a doctor who can move on to the next stage of, 'Do we need to do an amniocentesis? Is it so bad that there's no hope and you should just have a termination?' So it isn't for us to decide."

Sue also has to keep herself moving forward as there are often other patients waiting to be scanned. She approaches this problem in a practical way. "It will upset everybody but then we all sort of have to like go and get the next one in and you have to just put it right out of your mind and be like an actor or actress," she says. "Part of this job, in a way, is being like an actor isn't it? I think being a sonographer and working closely with the public all the time you have to be like an actor or actress. I mean people have it in their... I mean I think I'm kind of a kind person anyway, but I think over the years I've evolved into being a lot more kind and can... you know, you just evolve this way or else it would be a very dour situation if you're weren't smiley or making people feel at ease, it wouldn't be good in this kind of work. In fact, what they would do is they would probably go off and complain about you."

Sue likes to promote a professional image and sees this as a method of providing the next patient with the experience they deserve, especially following a bad news scan. For her, 'acting' gives consistency to her professional performance as a sonographer. Moving on is not so much about Sue dealing with her own feelings but rather about providing a service to her patients and being honest. "With a lot of people it's not the losing of the baby, it's the not knowing one way or the other that's the horrible thing," she says. "If it's explained to them, even though they're upset, it's within the comfort zone of all of us... There's only been very rare occasions where it's that upsetting that we talk about it because it's kind of routine to us now." Sue has come to view breaking bad news as a routine part of her job, and she suggests that this is true for the majority of her colleagues as well.

5.3 Summary of results

The participants' accounts of breaking bad news infer a temporal structure to the scan.

Initially there is a period of engagement with the patient in which first impressions are formed. The latter provides a sense of how the patient might react to bad news and often stems from an intuitive grasp of the situation. Due to the inevitable social expectations of ultrasound in pregnancy, there follows a period of gaining control in which the sonographer slows the interaction down and creates a mood conducive to conducting the technical aspects of the examination. The mood is generally levelled to provide a neutral atmosphere: excitement may be reduced and anxiety alleviated. This is also a period of preparing the patient. Potentially quiet periods of concentration may be forewarned of and the screening aspect of the examination may be inferred or emphasised explicitly. The first two stages can apply to every ultrasound examination.

The next three stages apply only to a bad news scan. They start with a period of discovery. Here anomalies become evident and lead to a period of reflective concentration. The sonographer can feel they are detaching from the patient and that this causes a tension which may alert the patient to the fact that something is wrong. A second opinion may also be sought. Each participant has their own way of dealing with the period of discovery and this may be the only point at which stress and coping theory offers a valid perspective on the process. When the investigation is complete, the period of detachment comes to an end and the sonographer returns to the patient to deliver the bad news. Standard phrases may be a way of easing into the bad news.

In the subsequent period of disclosure the intensity of the connection formed with the patient may vary. Much depends on the situation and the sonographer's personality

and style of breaking bad news. A genuine level of involvement is generally perceived as a way of providing empathy. Sonographers often allow themselves to get upset and do not hide from communicating this to the patient. Disclosure combines both the cognitive information giving aspects of breaking bad news with the existential concern of providing a comforting presence and acknowledging grief.



Figure 11. The five temporal stages of a bad news scan.

Following disclosure there is a period of moving forward for both sonographer and patient. The sonographer puts a pathway in place for the patient to follow and then attempts to get closure on the experience of breaking bad news. Immediately after the scan a short period of moving on to the next patient may require some form of coping strategy like acting or falling into a familiar routine. This allows the sonographer to give the next patient the experience they deserve. Closure may last until the sonographer is confident they have done all they can for that bad news patient, and this may require following their progress by contacting other professionals in their chain of care. On a long term basis closure may never end, but subsume itself into the sonographer's life long learning experience. These are the patients that explicitly guide every future bad news transaction and serve as examples to others. The five temporal stages of a bad news prenatal scan are illustrated in Figure 11.

CHAPTER 6 Discussion

6.1 Introduction

The primary goal of the methodology was to stay as close to the original experience of breaking bad news as possible. This involved listening attentively to the participants during the interviews and occasionally prompting them when something interesting or unusual surfaced. My role, as an IPA researcher, was to provide an open space in which it was possible, from a Heideggerian perspective, to be "alongside the entity which the discourse [was] about" (Heidegger 1927/1962, pp.206-7). In other words, to try and understand the phenomena from each particular participant's perspective. Following this, and on a more reflective level, I could then let the sonographers' individual stories emerge.

Nine sonographers recounted their experiences of breaking bad news. All were skilled professionals whom had had many years of experience with a great number of patients. On this level they shared an understanding of what it meant to be a sonographer during a "bad news" scan. Due to the homogeneous nature of the group, similarities in their experiences were bound to emerge, which they did. But there were just as many differences, and these reflected the individual perspectives that each of them held on the shared situation. Each perspective revealed both similar and different aspects of breaking bad news.

As only nine sonographers - all female, over the age of thirty, and with more than eight years experience of obstetric ultrasound scanning - were involved in the study,
one might ask whether there are still aspects of breaking bad news waiting to be discovered. The answer, more than likely, would be yes. The initial aim of the project was to select a group of participants who might exhibit a level of "expertise" in breaking bad news based on the length of time they had been doing it. (Here, the "ten thousand hour rule" was loosely applied as a guide (Ericsson, Prietula & Cokely, 2007)). However, none of the information sent to the NHS trusts throughout England inviting sonographers to take part specified either a minimum age or a minimum length of experience (Appendix 2). It just happened, fortuitously in fact, that all the sonographers that agreed to take part in the project fell within the desired "expert" category. This means that the analysis is limited to an experienced, expert (and exclusively female) group of participants. Thus, there is the question of how transferrable the findings are to other potential groups, and the question of what these other groups may have revealed about the phenomenon of breaking bad news in prenatal ultrasound.

Male sonographers, for example, may have revealed a new perspective on empathy as research suggests that the male capacity for emotional resonance during overt emotional encounters is different from that of females (Sonnby-Borgstrom, Jonsson & Svensson, 2008). A less experienced group of participants may have shed light on the role of empathy in the learning process; for example, does empathic skill initially take a "back seat" in favour of the cognitive skills required to attain technical expertise as Alison (pp.207) suggests? If so, do females differ from males in this respect? And then there is the question of how members of other professions such as midwives and

obstetricians, who also conduct prenatal scans, deal with breaking bad news, and whether what we have learned from the sonographers in this study is transferrable to them. Could indeed, what might be learned from midwives and obstetricians also be transferrable to sonographers? There are, indeed, many avenues left unexplored and questions left unanswered by the limitations of the participant sample and the methodology of the current study. But the important question to ask, at this juncture, is whether these avenues would ever have become visible without it. This study has at least provided a starting point: a perspective and a foundation for understanding the nature of breaking bad news during a prenatal scan. The current interpretation must serve as our immediate guide. The situation of breaking bad news during a prenatal scan is an evolving one and, for now, we can only glimpse at its present state.

When we looked at the roots of the IPA method it was clear that generalisations were not the main goal. (I make this point because I feel, in light of the results, that a generalisation might be a good place to start.) However, breaking bad news in prenatal ultrasound is a very specific phenomenon experienced by a very specific group of people. The participants in this study shared an overwhelmingly familiar set of background practices from which their individual experiences arose. Scanning, as a technical endeavour, has a rule based structure governed by specific protocols, and this undoubtedly contributes to the shared background practices. But scanning also has an experiential structure which emerges in the context of a bad news scan. This structure, we might suggest, is also shared. It, like the operational rules that govern the technical aspects of scanning, provides the structural background on the basis of which *all* prenatal scans might be experienced. Not just the bad news ones. In this respect, the five temporal stages of a bad news scan could be said to represent its general background or "ontological" structure.

6.2 An ontology of scanning

An ontological structure provides the background on the basis of which concrete experiences, i.e. "ontic" phenomena can arise. It is the latter which were detailed in the participants' accounts. Through a phenomenological analysis of these accounts the temporal structure of a bad news scan emerged. The five stages were not obvious at the outset, nor did they consciously drive the sonographers' actions while scanning. They did not, in other words, provide a set of rules for coping with the situation. It is also unlikely that rules can be derived from them as each scan is unique in terms of the sonographer-patient relationship. Instead, the temporal structure of a scan represents the stages of ongoing activity which occur when sonographers are engaged with their patients. This engagement, like the everyday engagement we have with the world in general, occurs at a primordial, background level and is only made conscious when certain aspects of it become experientially relevant.

There are obvious similarities between the primordial level of engagement and the non-conscious neural activity posited by the somatic marker hypothesis (Section 6.4.1.2), from which relevant affects, characterised by gut feelings, enter consciousness in order to implicitly guide behaviour. The latter is but one aspect of the background of a scan, and contributes to its overall "atmosphere." When women

describe this atmosphere change the moment an abnormality is detected (Baillie et al., 2000), and when sonographers refer to instictively knowing that a patient might not want to be pregnant in the first few moments of meeting them (Donna, pp.232), they are both illustrating the way in which their attunement to the changing temporal flow of the scan has alerted them to important underlying information at pivotal stages in the encounter. In the above example, the sonographer's instinct is the conscious product of a "somatic marker" during First Impressions. This marker is the result of acquired dispositional representations from prior experience of similar situations. Likewise, a woman's sensitivity to the "critical moment" during Discovery is a conscious warning effected by the sonographer's reaction to the changing temporal flow of the scan. Alison (pp.202) described time standing still when an abnormality had been detected and found hesrself separating from the patient. Here, the cessation of flow is accompanied by a concealment of "being-with" as reflection and concentration take over. It is, we can suggest, the woman's attunement to the reduction in being-with which makes her feel that the atmosphere has changed from social to clinical and detached. This illustrates how the conscious experiences of a scan represent the ontic phenomena which arise from its background ontological structure. As we have seen, the latter can be divided into five stages.

The suggestion that the five stage structure guides experience, indicates that it may also help us to understand and improve that experience. This is important because, as the literature suggests, the news-giver's experience directly affects the patient's experience during a bad news transaction. This was, after all, the point behind the SPIKES protocol. The difference, however, between the SPIKES protocol and the five stage ontological structure of a prenatal scan, is that SPIKES represents a stepwise plan attending to purely ontic phenomena (i.e. detached cognitive constructs grounded in rules), whereas the latter delves a little deeper into the background from which both the ontic phenomena and the accompanying rules arise.

Take, for example, the pivotal point during a routine scan where it becomes a "bad news" scan. We could say, from the sonographers' accounts, that the latter is characterised by "shock." Shock may be manifest in several ways as we have seen: hands shaking, heart sinking, mental distancing and a movement away from the patient. Each manifestation represents the ontic experience of the individual at that precise moment during the temporal stage of Discovery. Inevitably, such experiences were committed to memory and later recounted during the interview. By focusing solely on the ontic experience, however, one might be inclined to attribute its source to something *within* that particular individual. A mental process, perhaps, which leads the individual to merely appraise the situation as upsetting, stressful or intense. One may then ask why one person reacted differently to another, and search for the answer by way of individual psychological analysis. The latter approach is not without merit, but it is in danger of overlooking the more fundamental phenomenon of the shared background. A psychological analysis, as it is based on detached reflection, may, therefore, remain at the ontic level rather than delving deeper into existential concerns. We have encountered this in the different ways that empathy has been treated by medical models of breaking bad news (Section 2.5.3.1) and nursing models of care (Section 2.5.3.2): the former as a rule governed action and the latter as an intuitive presencing. What we should, therefore, ask is what caused that pivotal moment to exist in the first place? Technically, of course, it is represented by the discovery of an abnormality, but experientially it is grounded something entirely different.

We can suggest that the ontic experience of "shock" emerges when the routine flow of a normal scan breaks down. This flow stems from the temporal nature of the situation, not, however, in terms of the passing of seconds or minutes, but in terms of human existence (i.e. in terms of dasein as a thrown-projection). It hinges, in other words, on the temporal projection of the sonographer towards a future for-the-sake-of-which, by coping in an absorbed manner with a situation in which they already find themselves. As we said earlier, the for-the-sake-of-which may be the ambivalent combination of their professional duty to detect an abnormality and the ethical responsibility to care for their patient's emotional wellbeing.

The temporal nature of human beings is illustrated by Heidegger's (1927/1962) description of dasein as "*ahead-of-itself-already-being-in-the-world*" (pp. 236). We have touched on this concept in the methodology (Section 4.2.2), where human being was described in terms of its *throwness* and *projection* (throwness meaning always already situated in, and projection representing a continual movement towards a future interpretation). The temporal nature of the scan changed as the temporal projection of the sonographer changed the moment an abnormality was discovered. On an "ontological" level the situation moved from a ready-to-hand mode of being to an

unready-to-hand mode as the technical flow of the examination broke down and scanning became more deliberate. Alison said that she consulted a mental checklist (pp.202), Carol said that she was "taking it to a level two scan" (pp.257), and Sue said that she "went off on complete focus mode" and had to "think of more technical things" (pp.265). Dasein, after all, is the situation in which it finds itself - reflected in Heidegger's (1927/1962) statement that "dasein is its world existingly" (pp.416), so as dasein's mode of coping with the situation changes, so the latter's mode of being changes. It was this movement that formed a basis for the experience to be characterised in terms of shock. The pivotal moment, in other words, existed on the basis of a movement from one situational mode of being to another.

Moving from the ready-to-hand to the unready-to-hand involves withdrawing, to a certain extent, from an absorbed state of "being-in" a situation. A reflective stance can emerge as this process of distancing occurs. The more abrupt the movement, the faster distancing may occur. Indeed, a present-at-hand mode of being may be quickly reached where objective facts are considered and deliberated over - experienced, for example during the consultation of a mental checklist. A present-at-hand mode may persist and show itself through the choice of being "like an actor or actress" (Sue, pp.269) for the rest of the consultation as well as those that follow. Such distancing could be categorised from a cognitive psychological framework as emotion-focused coping (Folkman et al., 1986). However, a level of readiness-to-hand may be also be regained where the sonographer becomes absorbed once again in the new "bad news" situation. It is in this mode that the experience for the sonographer may become more

emotional and intuitively guided. Phenomena such as being in a bubble, tacitly holding the patient's hand and feeling their despair, for example, may become experientially relevant (Carol, pp.257).

Intuitively guided action, however, is unlikely to be classified as problem-focused coping as it lacks any objectively guided modification of the environment. As intuitions arise from a background emotional sensitivity (grounded ontologically in being-with), it is likely that they would be categorised as emotion-focused coping and, therefore, deemed negative. Yet they are far from negative with respect to maintaining flow and facilitating tacit, empathic behaviour.

"Being-in" a situation with someone is not, however, the same as "being-with" them on an existential level. Being-in might reflect a technical level of absorbed coping from the sonographer's perspective, whereas being-with is reflected in a willingness to engage with their patient emotionally: entering into a bubble with them, so to speak, as Carol suggests (pp.257). Being-in and being-with will flow in a ready-to-hand way until disrupted by the critical moment, at which point they both become unready-tohand. For some sonographers, being-with may be unready-to-hand from the outset, or even present-at-hand if they choose to emotionally distance themselves from their patients as a matter of course. Perhaps if they believe that a professional persona should be maintained by a posture of cool detachment (Fallowfield, 1993). It all depends on their approach. Ruth and Margaret both reflected a certain level of emotional distancing in their descriptions of how they related to their patients. For Ruth, this was the result of maintaining a stance of having to educate her patients about the screening purpose of the ultrasound scan, because, as she pointed out, they invariably fail understand that abnormalities can be detected. Even when she explains this to them, Ruth feels they are not listening to her: "They've got a blank face," she says, "and they haven't taken it in" (Ruth, pp.216). Margaret, on the other hand, viewed her relationship with patients from the perspective of maintaining control and focusing on the technical, "fact finding" aspect of the examination. To do this she provides a running commentary in order to avoid being interrupted by the patient: "I talk people through it; that's my method," she says (Margaret, pp.223).

Both Ruth and Margaret frequently mention the disruption of technical flow (beingin), but rarely that of emotional flow (being-with). Perhaps, this is because, in their individual approaches to scanning, being-with has become concealed by their own particular style of entering into the situation with the patient. Ruth's case is interesting as she started her career in the early pregnancy foetal assessment unit (EPFAU), where bad news is commonplace, and had not long joined the general obstetric team. Without the positive aspects of a normal "social" scan to balance out the negativity in her daily practice, perhaps Ruth had indeed become conditioned in favour of emotional distancing. This is predicted by both the emotional labour model (Hochschild, 1983) and Goffman's (1956) theory of embarrassment and social organisation (see Section 2.5.1). The breakdown of the ready-to-hand gives rise to a range of ontic experiences which, we can suggest for now, depend on the sonographer's initial, and subsequently maintained, level of engagement in the shared situation with the patient. When ontic experiences are analysed, assertions can be made about them which can lead to the assumption that they follow certain rules. In turn, rules can be developed and applied to modify the experiences. As we said earlier, the latter is the perspective underpinning current guidelines such as SPIKES. The movement from readiness-to-hand to presence-at-hand is illustrated in Figure 12.



Figure 12. Movement from the ready-to-hand to the present-at-hand mode of being when absorbed coping breaks down.

Absorbed coping represents the directed activity of the skilled sonographer during an otherwise routine examination. They are skilled in both the technical aspects of the

examination and, to varying degrees, the social aspects of dealing with patients. This background level of coping creates the unimpeded temporal "flow" associated with a "normal" routine prenatal scan. When an anomaly is discovered, during the critical moment, the aforementioned flow breaks down and the situation becomes unready-to-hand. The temporary breakdown of ongoing activity, which is characteristic of the Discovery stage, can be described in terms of "obstinacy" (Heidegger (1927/1962, pp.103). The latter is Heidegger's word for a phenomenon that disrupts the ready-to-hand because it has to be overcome. As Dreyfus (1991) points out,

"Deprived of access to what we normally count on, we act deliberately, paying attention to what we are doing... in deliberation one stops and considers what is going on and plans what to do, all in a context of involved activity" (pp.72).

What must be overcome, in this instance, is the communication of bad news. Or, rather, the "fear" associated with breaking bad news if we take into account the MUM effect (Tesser & Rosen, 1972). Thus, the temporal flow stops, giving rise to the ontic experience of "time standing still" as Alison described (pp. 203). When reflection occurs, such as consulting a mental checklist, a present-at-hand mode of being may be reached. This may be temporary if the sonographer re-engages quickly with the patient in a ready-to-hand way, or more permanent if they remain distanced.

When the movement from unreadiness-to-hand to presence-at-hand is perceived ontically as stress, then it can be interpreted in several ways. For example, from the perspective of stress and coping theory (Lazarus & Folkman, 1984), where assertions made about underlying cognitive coping mechanisms are made determinate and posited to follow rule-based propositions. We might assert that primary and secondary appraisal processes determine whether the stress associated with breaking bad news turns the latter into a "threat" or a "challenge," which are, in turn, associated with emotion-focused or problem-focused coping accordingly. Once again, it is important to see that such propositions remain at a present-at-hand level, and cannot account for the ready-to-hand level of engagement from which they arose. Looking from an ontological perspective at the temporal structure of a scan may, however, retain a connection with that prior level of pre-reflective activity.

So far we have only discussed the pivotal or "critical" moment during which a normal scan becomes a bad news scan, and this has been described in terms of a movement from one mode of being to another. In so doing, we have attempted to give it an ontological basis. The modes of being, however, are mutable and in constant flux, which is to say that a normal scan and a bad news scan are not separate, distinct entities. Such a classification can only occur at the "ontic" level and with the benefit of hindsight. All scans are normal until the critical moment occurs, so good and bad news scans begin the same way. Each sonographer, however, will approach the scan with a unique style, and this is partly determined by their willingness to engage emotionally with the patient. The latter, as we have suggested, is grounded ontologically in being-with.

The initial level of being-with is important when considering the problem of how to break bad news in a genuinely empathic way. It is important because, throughout the five stages of the scan, being-with can become concealed to varying degrees as the situation unfolds. To illustrate, being-with may: (1) remain unconcealed and provide relevant insights into the patient's emotional disposition during First Impressions; (2) be deliberately suppressed during Control to facilitate the technical flow of the examination (being-in); (3) become concealed at the critical moment of Discovery, when the situation becomes unready-to-hand; (4) be re-discovered during Disclosure, enabling a genuinely empathic response, and (5) last until a point of completion, thereby facilitating the transitional period of moving on (see Figure 11, pp.272). If being-with is concealed from the outset, then it cannot be re-discovered during Disclosure, and empathy will probably take a cognitive route rather than an intuitive, tacit one. "Acting," for example, may the only solution (Dow et al., 2007).

With respect to the five ontological stages, beginning with First Impressions and ending with Closure, each prenatal scan could be said to embody the essence of a hermeneutic circle. The sonographer enters a newly shared situation with each patient they meet. This situation has a structure and is preceded and followed by similar situations with the same structure during the course of a day. Each scan involves both an informational and emotional interpretation across all of its five ontological stages. How the scan is entered into affects primarily the emotional interpretation and the ontic phenomena of experience that arise from the interpretation. These may range from becoming part of the process (Carol) to remaining outside it and pursuing goals that are at odds with those of the patient (Ruth). Entering into a scan is like entering into the hermeneutic circle, which suggests that there may be a "right way" to do it. In the following section we will look at each of the five ontological stages in light of the participants' accounts in order to see whether a particular way of entering into the scan, reflecting a particular "style" of scanning, might affect the way bad news is delivered. A sonographer's style, in this sense, reflects their level of engagement in the shared situation with the patient as the temporal stages unfold.

6.2.1 The five ontological stages of a scan

We have briefly discussed the pivotal stage of a scan, namely "Discovery" during which the phenomenon of a "bad news scan" emerges. This is the obvious stage that comes to light when considering the question of how bad news might be communicated. We have suggested that when the temporal flow is interrupted by the discovery of an abnormality its mode of being changes, giving rise to the ontic phenomenon of shock. Current research has focussed on the latter as a source of stress and has attempted to manage it accordingly. But what we have seen is that the temporal stage of Discovery, characterised by the "critical moment" of a bad news scan, is only part of the underlying structure of prenatal scanning in general. Focussing on this stage exclusively may cause us to overlook the routine ethical comportment of sonographers which underpins their daily practice - something which has been studied extensively in the field of nursing care (Dreyfus, Dreyfus & Benner, 1996).

Ethical comportment, according to Dreyfus, Dreyfus & Benner (1996) is a skill which is different from other clinical skills as it requires a background of experiential learning. "Growing up in a culture," Dreyfus, Dreyfus & Benner (1996, pp.263) say, "teaches one the common background meanings, habits, practices and skills necessary for ethical comportment." This is something we learn from childhood. One could argue that the same background practices, which guide our daily interactions with others and form the basis of being-with, underpin the type of ethical comportment with which sonographers carry out routine prenatal scans. It is part of how they deal with patients on a daily basis. As a bad news scan invariably begins as a normal scan, unless preceded by exceptional circumstances (as do the majority of scans in EPFAU), the same comportment must be evident throughout both. We have argued that a normal scan and a bad news scan have an identical temporal structure prior to the Discovery stage, namely First Impressions and Control. When the participants in this project talked, in retrospect, about bad news scans - particularly in relation to how they began - something of their routine ethical comportment was reflected in what they said. When the flow of the scan broke down during Discovery, the scan changed (from "normal" to "bad news") but, we could argue, the underlying comportment of the sonographers did not. The question is: how was the latter reflected in each of the five temporal stages of the scan and how did it ultimately affect the way bad news was communicated?

Throughout this thesis the problem of breaking bad news has been framed in terms of foreground and background phenomena. Foreground phenomena such as information

giving, the cognitive appraisal of stress, development of coping strategies, and the need to act empathically are the foundations of current breaking bad news guidelines. We have argued that these are the core components of the medical model of breaking bad news and, as such, can be operationalised into rule-based activity which lends itself to advance preparation. Indeed, investigating an anomaly during a "level two" scan, giving accurate information to the patient, and planning a referral are all examples of foreground phenomena which benefit from preparation. They involve deliberation, judgement and the application of rules. On the other hand, sensing the atmosphere of a scan, tuning into a patient's emotional needs and responding empathically are all background phenomena. They could be described as intuitive, pre-reflective processes that often give rise to no more than a conscious affect (i.e. somatic marker) in order to guide behaviour. Such phenomena have been the focus of nursing research into models of care. The suggestion is that both foreground and background phenomena are crucial to breaking bad news well during a prenatal scan, as the way that information is conveyed, particularly in relation to the mood that is effected by the situation, is as important as its content when considering the patient's experience (Salander, 2002).

What we have termed foreground and background phenomena should, for the purpose of phenomenological investigation, be understood in terms of consciousness. When something is in the foreground of consciousness it becomes an object of reflection, and as such acquires a certain distance from the subject contemplating it. In this reflective state, both subject and object withdraw from an engaged being-in-the-world and, instead, enter a present-at-hand mode. Background phenomena, however, can remain at a pre-conscious level, although they may have conscious correlates. They are, from a neurobiological perspective, the dispositional representations acquired from experience that can create conscious affects via the adoption of particular body states (Damasio, 2006). They give rise to the "gut feelings" that filter out extraneous information and help us make a decision by focusing our attention on what is relevant, particularly in a fast moving and stressful situation (Gigerenzer, 2007). For example, an empathic attunement to a patient's mood during a prenatal scan can flow in a readyto-hand way at the level of the background, until a conscious warning signal (somatic marker, gut feeling, intuition, or instinct) directs the sonographer's attention to some aspect of the situation that requires modification. This could be the instinctual (background) first impression that a woman might not want to be pregnant which, as Donna pointed out, might lead the sonographer to ask the woman (in the foreground) whether she wanted to see the baby on the monitor during the scan. The whole situation would then be modified to reduce the social element of the scan. "You don't enthuse and say, 'Congratulations!' and everything," as Donna (pp.233) suggests.

The critical moment is the point during a scan where the transition from background to foreground phenomena becomes obvious. The fact that the discovery of an abnormality is shocking is an indication that the previously taken for granted flow of directed activity needs to be altered in some way to accommodate this new event. A mental checklist, for example, may have to be consulted. The feeling of shock, in this case, represents the conscious correlate of the sonographer's pre-reflective attunement to the shared situation as it breaks down. The critical moment of the Discovery stage, in other words, deals primarily with foreground phenomena. Yet, from a phenomenological perspective - which, as we emphasised in Chapter 4, looks for what lies hidden as opposed to what is obvious - it also highlights those phenomena which were previously *unnoticed*. The sonographer's attunement to the patient's mood would be one example. Indeed, without this background attunement, breaking bad news might be devoid of any emotional content whatsoever in the Disclosure stage, and simply become a matter of transmitting unwanted information. This scenario, we have learned from the participants' accounts, is reflected in the situation prior to disclosure by sonographers: a doctor or midwife, for example (whom had not been subject to the background phenomena of the scan) would simply turn up and tell the patient the bad news. This was perceived by some of the sonographers in this study as being insensitive to the patient's needs and often left them frustrated that they themselves could not help (Alison, Nicola, and Sue). As Alison (pp.198) said, "I just said 'Here's the midwife,' and 'here's the report... there you are'. And you know that has always stuck with me. I felt that I didn't help that lady, you know, and she must have had a terrible time."

We can suggest that the foreground and background phenomena that are present during the five stages of a prenatal scan represent the "overt" and "covert" aspects of the situation as it unfolds. These aspects often occur side by side. They are also concrete or "ontic" phenomena, as sensing the anxiety or excitement of a scan (i.e. the conscious correlate of an empathic attunement) is as experientially "real" as formulating the correct words to convey bad news. Ontic phenomena tend to share some ontological foundation, and this, we have argued so far, rests in the five temporal stages of a scan. In the following sections we shall look at the overt (foreground) and covert (background) aspects of each stage in order to see how they might affect the process of giving bad news.

6.2.1.1 First Impressions

Overt aspects of this stage were described by the majority of the participants. They centred around information gathering and dissemination. Practical steps included asking questions, finding out what the patient's expectations were and explaining the procedure. Certain rules may also be followed such as making eye contact and observing body language, although these might only have been apparent in retrospect. Maintaining a flow of information at the beginning of a scan is the cornerstone of current advice (NHSFASP, 2010a).

The online resource for health professionals involved in ultrasound screening during pregnancy (http://fetalanomaly.screening.nhs.uk/fetalanomalyresource/) highlights the importance of the information dissemination between midwives and sonographers prior to a prenatal scan being undertaken. This information includes practical details such as the woman's preferred language, known disabilities, BMI, previous pregnancies and outcomes, consent status, current pregnancy status, serum tests and results and socio-cultural issues. The latter are all relevant to how the sonographer will relate to the woman at the point of meeting them. It appears that the adoption, by some

participants (Alison, Donna and Paula), of an ultrasound consent form is a way of grounding both information gathering and dissemination in a concrete and overt form during the First Impressions stage.



Figure 13. First Impressions: The first ontological stage of a prenatal scan.

There were certain general preconceptions held about the women attending for scans which also contributed to the sonographers' first overt impressions of them. One was that they failed to appreciate the screening aspect, despite receiving both verbal and written information prior to the scan from other health professionals involved in their care. As Alison (pp.199) said, "Even though part of the midwife booking visit is supposed to be counselling them, it just doesn't seem to get on board." This, according to Ruth, may be because midwives are not properly informing women about the scan: "They're supposed to have a big discussion with the midwives... Often you'll see

written in notes *screening declined* – *twenty week scan accepted*. It's screening, no difference, but it isn't seen as screening, it is definitely not seen as screening" (Ruth, pp.215). Donna suggested part of the problem was that other health professionals were unaware of the fact that women could receive bad news during the scan and did not appreciate the sonographer's role: "The midwife was downright rude about it. She said, 'You don't do that!' [break bad news] and I said, 'Excuse *me*, but we do! And if you actually knew what we do... Come in and see what we do and then you might not send some of the rubbish requests you send'" (Donna, pp.231).

This is reminiscent of the debate we encountered in the literature about whether informed consent was actually possible due to the social nature of ultrasound screening, and whether increasing the amount of information given to women was actually helping the situation. The participants in this study infer that rather than the amount and type of information provided, it is the way that information is given to the women that matters, and this has a lot to do with the attitudes of those who give it to them. Perhaps many do not realise the immediacy of the news giving process during a prenatal scan, and as Nicola suggested, this may be one reason why women are often managed poorly before attending their ultrasound appointment: "I always say to people, 'Have you seen your midwife yet?' And if they say, 'No, I've just got my appointment through the post, she's going to see me later,' then they haven't been informed and they haven't consented" (Nicola, pp.243).

The covert aspects of First Impressions are rather more subtle. This stage may involve

an instant like or dislike to a patient. As Donna (pp.232) said, "You get some patients in to the room and they just rub you up the wrong way as soon as you've called them in... For some reason they irritate you and you've absolutely no idea why." However, covert intuition combined with overt information may lead to an informed judgement wherein the patient is classified as a certain type: big and relaxed or, perhaps, thin and nervous (Alison, pp.200). As Alison said, "When they've put *thyrotoxicosis* on the form, you'd think 'thyroid,' but you wouldn't know that would be a hyper-anxious person who would be very jumpy, unable to relax, and would be a thin person who would actually be easy to scan. You know, all that sort of thing comes into your head once you've had some experience."

There is generally an awareness of the mood that the scan will take, ranging from an atmosphere of excitement to one of anxiety, and this may lead it to be modified during the Control stage. Depending on their openness to the situation a sonographer may become instantly involved with the patient as Carol (pp.257) suggested: "You start becoming part of their bubble and they start then telling you a lot of stuff."

First impressions are guided by the sonographers approach to the scan, where a level of attunement/involvement may provide useful emotional or socially relevant information to complement the more overt, factual information received in advance or gathered during the initial meeting. This may affect the way the sonographer provides both "good" and "bad" news about the results of the scan at a subsequent stage: "You chat to them and you ask them the history, and sometimes you just get that feeling that

they don't really want to be pregnant." (Donna, pp.232). This attunement, however, may sometimes create a negative approach as Nicola (pp.244) described: "You're already thinking, 'I'm having nothing to do with this patient... I'm just going to do the scan and I'm going to finish.' And yes, you could be detached. You could detach yourself from that kind of patient. As to what happens when you find an abnormality with that type of patient... maybe it is easier, I don't know."

The stage of First Impressions is an opportunity for the sonographer to begin with an openness that could promote receptivity to the subtle social and emotional signals which create the atmosphere of the scan. Such covert information may prove as useful as the overt information gathered during this initial and often very short stage. As Judith (pp.192) said, "Everybody's different and their reactions are different. Really, you have to weigh people up in a split second to gauge what you're saying." It appears that the ultrasound consent form as well as promoting informed consent may also facilitate a more personal interaction with the patient, which can be particularly useful during busy periods. As Alison (pp.202) explains, "We feel that having to sit and actually physically explain and sign - you've got to go through that sheet of paper - will force you to use the time and make sure that you don't cut that bit [the patient bit] out."

6.2.1.2 Control

The control stage is a precursor to implementing the technical aspects of the scan. Overt aspects include warning the patient of impending quiet periods where the sonographer will be concentrating on gathering information about the baby. As Carol (pp.256) explained, "I always say I'll go quiet and there are two reasons for this: one is to allay fear, and the second is to focus their mind that there might be a problem, and that I'm looking for a problem." Keeping up a general level of conversation or providing a commentary about the scan can maintain an aspect of flow for the patient during the examination as well as preventing interruptions. As Paula (pp.209) said, "I have like a general patter of conversation which I could reel off without thinking about it... and I probably don't listen too much to the answers. But you've kind of got that interaction going on." Margaret (pp.223) also referred to talking as she scans as her "method," which is one way of turning an overt approach into a rule based activity.



Figure 14. Control: The second ontological stage of a prenatal scan.

Covertly, control is about creating a space for the sonographer to do their job. Existentially it is a period of moving away from the patient. As Nicola (pp.245) said, "I contact with them when they first come in - get that bit done, and then say, 'Right I'm going to have to leave...' You know, 'Look at the screen now and get the scan done and then I'll come back to you at the end.'" An attunement to the specific mood of the scan, carried over from First Impressions, can help the atmosphere to be controlled. This often involves "levelling," where the social aspect may be reduced and a certain amount of anxiety associated with screening introduced. This is reflected in Sue's statement (pp.264) that, "If they seem too upbeat, then bring them down... and just start them with a little bit of worry, and I mean they won't have to worry too long if things are alright." The latter is an interactive process which, as we have seen, may be manifest in aspects of overt behaviour such as warning of quiet periods and mentioning normal structures to infer that abnormal structures may also exist.

The Control stage also depends on the level of involvement the sonographer has with the patient. High involvement, combined with technical expertise might allow them to remain receptive to the patient's changing mood as each structure of the foetus is investigated. Alison's driving analogy - where technical expertise flows smoothly in the background and thus allows concentration on the social aspect of the relationship - is a good illustration. "You've got to be able to physically do things and look on the road ahead... and gradually you speak to your passenger... you have to train to be interactive and detached at the same time" (Alison, pp.207). The ability to stay attuned to the atmosphere of the scan, in other words, remain emotionally resonant with the

patient, is, according to Alison, something that only comes with experience. Initially this is difficult due to the need to focus purely on the technical aspects of scanning.

A lower level of involvement during the Control stage may promote a more deliberative, cognitive approach, exhibited by Margaret, who purposely avoided giving any emotional signals to her patients during the scan. As Margaret (pp.224) said, "I always learned to scan with the patient facing the screen. Although they can't see my face, I'm talking and pointing out things on the screen." Without seeing Margaret's face the patient would be unlikely to sense, through emotional resonance, when the critical moment had occurred in the subsequent Discovery stage. In addition, Margaret's commentary provides an overt cognitive distraction from the background emotional atmosphere of the situation. A lower level of involvement may also promote detached reflection, exhibited by Ruth, who was constantly aware of her own expression and preferred to concentrate in silence: "I've been told my face is quite expressive when I'm scanning, so I have to be careful" (Ruth, pp.217).

Overt aspects of Control appear on the surface to form good practical advice: warn of quiet periods and provide a commentary to avoid interruptions. However, without the underlying receptivity to the patient's mood and the ever changing atmosphere of the scan it may be difficult to respond appropriately to the unique situation and modify one's behaviour accordingly. Following a rule aimed at the general situation may promote inflexibility and ultimately lead to emotional distancing.

6.2.1.3 Discovery

This stage is heralded by the "critical moment" which occurs when a normal scan becomes a bad news scan. Overt aspects include shock, moving to a level two scan, a period of concentration, and consulting a mental checklist. The Discovery stage may also be extended by obtaining a second opinion from a colleague. Quiet periods are an inevitable consequence. This is also a period where a suitable pathway for the patient may be devised.



Figure 15. Discovery: The third ontological stage of a prenatal scan.

Covertly, the flow of scanning is interrupted and the sonographer withdraws from their absorption in the shared situation. Alison (pp.203) described this by saying, "I almost stop before I start again so that I know my checklist of all the other things I need to find out are clear, and then do the rest of the scan." This may introduce a certain distance between the sonographer and the patient. As a result, the changing atmosphere may be sensed, especially by the patient, as it moves from "social" to "clinical and detached" (Baillie et al., 2000). We can see how a sonographer with an involved style may still be perceptive to the changing atmosphere despite the immediate breakdown in the situation, and perhaps a suitable response might be effected to reduce the tension. As Alison (pp.203) explained, "They'll notice when I go a bit more silent so I have to explain myself. But I always say, 'I've got to concentrate on this bit now and I'm going to be more quiet.""

Alternatively, the effect of distancing on a less involved style may lead to detachment and an inability to respond to the immediate needs of the unique situation. Instead, an excuse may be made to create a physical distance from the patient: "What you would ideally like to do in that situation is get yourself away from them for, like, a minute... Maybe sometimes I've said like 'Look,' and maybe tilted the bed with the feet up to say, 'Look, I'm just going to tilt you here. I'm just going to get the baby down... let the baby come down with gravity and I'll just be back in a minute'" (Sue, pp.267). Physical distancing, however, has a practical application as it often allows the sonographer to get a second opinion from a colleague or seek further advice. As Sue said, "It just gives you that minute to go and get a bit of backup, so you know that backup's coming and then carry on with what you're doing." The practical benefits of distancing during the Discovery stage, although it may cause distress for the woman if she has sensed that something is wrong, may be one reason why a third of sonographers seek a second opinion in cases where a definite abnormality has already been detected (Maddocks et al., 2009).

Covert distancing during the Discovery stage, manifest overtly as technical concentration, can, as we have seen, lead to overt distancing in a physical sense. However, it is how the level of involvement with the patient is maintained throughout the following stages of the scan which is important to the way bad news is given. Distancing, of course could lead to detachment if the initial level of involvement is low, and this could mean that a genuine empathic response may be obviated during the Disclosure stage. As we have seen, distancing is a common form of emotion-focused coping strategy adopted by other health professionals involved in breaking bad news as a precursor to avoiding burnout (Myers et al., 2007). But in prenatal ultrasound it can have a negative consequence on the patient's experience of receiving bad news as having a personal connection with the sonographer is something women strive for (Walker, Miller & Dalton, 2008). It would appear, therefore, that the ability of the sonographer to either maintain or regain a level of involvement following the Discovery stage is crucial to being able to deliver unexpected bad news in a genuinely empathic way.

6.2.1.4 Disclosure

The primary overt aspect of this stage is the provision of information regarding the abnormality. Giving clear, honest information in a timely way is advocated. Particular rules may be followed such as leading in to bad news with a standard phrase, as Margaret (pp.225) described: "I usually say, 'This isn't looking as it should do alright,'

and that can be the opening statement for everything." The latter is recommended by current guidelines and described as "firing a warning shot" (Buckman, 1992). There is also an obvious sense of responsibility that sonographers feel towards their patients, which Judith (pp.192) described: "You know that whatever you say to that person is going to remain with them forever. If somebody is told something bad they remember those first words that are said to them."



Figure 16. Disclosure: The fourth ontological stage of a prenatal scan.

Covertly, Disclosure represents a period of returning to the patient. The previous Discovery stage necessitated a level of distancing, and the sonographer's approach - with respect to their initial openness to the situation, or level of involvement - may be crucial to how this period of return transpires. Alison (pp.204) described the latter in terms of the sonographer's level of experience: "You can only bring the warmth in to

sort out the situation with experience. First off [when newly qualified] all you've got to do is sort the patient out and you can't give the empathy back again." A high level of involvement may invoke intuitive responses as Carol (pp.262) discovered when she received a letter from a patient who had received a positive screening result: "She [the patient] said that, that although it was bad news, what I did was that I held her hand while I was giving her the bad news... I don't remember doing that."

Touch is something many of the participants said they used in order to effect an emotional connection with the patient immediately after breaking bad news. Although this sounds like an overt and deliberative act, the use of physical contact appears to have been guided intuitively, which indicates that a certain level of involvement was already present. This is evident in Judith's (pp.194) description: "I would definitely take their hand and gauge from that how much physical comfort they want. Maybe just touch their hand... it's instinct really, it's a little instinct because some people aren't tactile are they? They don't want to be touched, they don't want physical comfort at that time. But you can just tell really. I can't tell you how you can tell but you just can."

Returning to the patient, in an existential involved sense, can often be abrupt, particularly in cases of foetal death as Nicola (pp.247) described: "They're the short, sharp - you put the transducer on, there's no heartbeat, that's it. So that's the end of the scanning and the focus goes completely on to the patient." Sometimes, for Nicola, the instant re-connection to the patient could be enough to communicate the bad news,

without the necessity of words: "She [the patient] looked at me and I said... and I must have hesitated just for a few seconds... and so she said, 'You're going to give me bad news aren't you?' And I said, 'Yes I am'" (Nicola, pp.247). This illustrates the passage of covert information, which in itself can be extremely powerful. It also shows how the overt passage of factual information may be secondary to the primary phenomenon of emotional resonance.

At the other end of the scale, low involvement, such as that described by Ruth, may simply promote frustration at the fact that little help is available from outside sources. The sonographer may feel that they have been given a task which, as we have seen, is neither understood nor appreciated by other professional groups. In this situation, returning to the patient emotionally might be difficult and a colder atmosphere may prevail. As Ruth (pp.218) said, "There's nothing you can do about it. Nature has taken its course, it's gone, there's no decisions to be made, *fait accompli* you know, 'Sorry but your baby's died.'" Margaret (pp.225), who also reflected a sense of low involvement, provided a similar perspective: "Everybody wants their baby to be perfect but, you know, they're not. It might be a clubbed foot, you know, it might be talipes, you know, it might be a cleft lip. You know, it isn't the end of the world. Babies do get over these things."

For many of the participants, each with varying styles of involvement, the distance created by Discovery reduced the period of Disclosure to a cognitive task in which information was given. That is not to say that this was devoid of any emotional content, merely that during the moment of disclosure, involvement was temporarily suspended. The extent to which involvement was regained possibly depended on its previous level. We can suggest that involvement (based ontologically on being-with) is necessary for communicating bad news in a genuinely empathic way as it makes the patient feel valued. Yet to advocate remaining open to the patient on an emotional level would contradict current guidelines such as SPIKES, which recommend emotional distancing to guard against occupational burnout (Baile et al., 2006).

Several of the participants, however, described empathising with their patients during the Disclosure stage to the point of becoming physically upset themselves. Crying, which has been reported by other health professionals working in foetal medicine units (Williams, 2006), was not uncommon, as Carol (pp.261) described: "Some of the crying is so heartbreaking that you start crying too and I feel... in the past I used to feel that 'I'm the person giving the news and I'm the professional, and I shouldn't cry,' but there is no way you can't cry and you start crying as well and I've had a few letters where it said that it helped them... not 'helped' them, it just made... it, we... at the end of the day we're human and I think that crying helped her and it helped me. Although I try and avoid the crying, you know, if I can." Here, we can see that Carol believes that this level of emotional involvement, although not considered a "normal" thing to do professionally, can have a positive effect on the relationship between herself and the patient.

6.2.1.5 Closure

Closure is a period of coming to terms with what has transpired during a bad news scan. It is relevant for both the sonographer and the patient. In this stage the temporal aspect comes to the fore, as Closure symbolises a projection into future events beyond the end of the scan. For the sonographer this may be dealing with a new patient. For the patient it will mean coming to terms with their own emotions as well as the practicalities of moving on to the next step in their care pathway, be that further tests, counselling or perhaps a termination of pregnancy (TOPFA).



Figure 17. Closure: The final ontological stage of a prenatal scan.

The overt aspects of Closure, for the sonographer, involve implementing a plan of action and putting a pathway in place for the patient to follow, the foundations of which may have already been laid in the Discovery stage. Providing information on counselling services such as Antenatal Results and Choices (ARC) or suitable information about the abnormality may also take place. Access to a quiet room can effectively extend the period of Closure, where basic items such as tea and tissues can be on hand (Statham, Solomou & Green, 2001). One could describe the overt aspects as short term solutions to a difficult situation. However, this is often a situation which extends beyond the confines of the prenatal scan.

The covert aspects of closure tend to deal with the longer term effects. For the sonographer this centres on satisfaction. Alison (pp.206) described a residual level of concern about particular patients that remained until she was able reach a point of completion in her personal relationship with them: "That bad news patient will stick with you until you're happy that you've done all that you can." This often involved following the patient's progress with other health professionals involved in the subsequent stages of their care. When closure was reached, Alison felt she could move forward with the normal flow of routine scanning once again. Nicola reflected a similar level of concern and often tried to keep the lines of communication open with a patient, in case she could help them after the scan had been completed: "I always give them my number and my name. I don't know if the other sonographers do, I don't know. But I always say 'If you get home and there's something you wish you'd asked me just call back. Just ask for me, you know, and I'm here all day'" (Nicola, pp.251).

Satisfaction may also hinge on balancing the positive and negative aspects of prenatal

scanning. Carol described her joy at seeing a healthy baby and how that, on a long term basis, outweighed the negativity associated with breaking bad news: "What also stays with you is that lovely, beautiful face you might take, you know, to the point where it fascinates you this baby... I can see the personality of the baby, you know, it's fantastic" (Carol, pp.263). For Ruth, however, who had spent most of her career performing scans in the early pregnancy foetal assessment unit (EPFAU), these positive aspects of scanning were rarely present, which as we suggested earlier, may have contributed to a low level of involvement with her patients. Sue, who also exhibited a lower level of emotional involvement with her patients, described being satisfied when she could categorise the patient's response to bad news as remaining within acceptable limits: "There's a certain amount of emotion you're fairly happy with. As a sonographer you think that's a sort of healthy amount of emotion, that's a healthy amount of being upset" (Sue, pp.268). This indicates that a certain amount of emotional distancing might effect a rational analysis of events and allow the Closure stage to reach a point of completion before a new patient has to be scanned. However, Sue also pointed out that moving on to the next patient invariably involved having to "be like an actor or actress" (pp.270), which suggests the subsequent relationship with a new patient may suffer from an inherent level of emotional detachment from the outset.

Social support from colleagues, albeit informal, was also described by several participants as a valuable means of being able to move forward during the Closure stage. As Judith (pp.196) said, "We'll have a chat at coffee break. We all get on very
well and we support each other with anything and everything. So, you know, it's good to be able to talk about it." Perhaps a level of social support was also derived from colleagues when a second opinion was sought during the Discovery stage. Donna (pp.241) suggested that having that same colleague present during the Disclosure stage could be valuable (later on during the Closure stage) in coming to terms with how she had handled breaking the bad news: "We'll say, 'Oh that was awful,' and 'I really didn't like doing that,' and, you know 'How could I have done that... could I have done that better?" This obviously has the practical benefit of receiving a direct evaluation of how the news was given. However, as we said earlier, leaving the patient to obtain a second opinion may increase their anxiety prior to the bad news being disclosed if they have already sensed that something is wrong.

The informal means of deriving social support from colleagues that the participants described is something which has evolved naturally from their everyday practice. Other health professions, particularly those involved in the emergency services and that deal with infant death, have a more formalised approach often implemented by structured debriefing sessions (Theophilos, Magyar & Babl, 2009). In fact, there is a growing body of research aimed specifically at the development of these debriefing methods (Tuckey, 2007). The research involving nurses, who often provide emotional support during traumatic incidents, suggests that debriefing provides them with a sense of closure on the situation (Keene et al., 2010). In this study, the observation that sonographers have developed their own informal method of debriefing through social support, indicates that it is an important phenomenon during the Closure stage

of a scan and possibly something warranting further research.

The period of Closure invariably overlaps with the First Impressions of a new scan. This highlights an interim period of moving on. Here, a variety of short-term coping strategies were often implemented by the participants. Sue, as we mentioned described having to be like an actress, whereas Paula (pp.213) fell back into a familiar routine: "I can benefit from the fact that I can just talk inane rubbish at people, and it gets you through, and I don't know if it's my own personal coping strategy but it just helps because then you're just back to doing routine, normal... you know. It's not fair on the patient you bring in next to get the backlash of what's gone on just before." Margaret tended to treat the discovery of an abnormality as a learning experience. Ruth (pp.217), however, was rather more negative and inferred that the whole process was something she wanted to escape from: "If I could find... and I'm looking for another job, I would take it to get me out of the stress of that. Because I do find it extremely stressful to the point where it makes the job unpleasant to do." Carol, on the other hand, who had a highly involved style, inferred that moving on represented leaving one emotional "bubble" with a patient and entering into a new "bubble" with a subsequent patient.

We can see that the temporal nature of Closure, from which the covert aspect of moving forward in a way that promotes satisfaction arises, varies according to the level of involvement a sonographer exhibits. Low involvement appears to promote a reflective attitude in which a sense of isolation may be experienced. A medium level of involvement at least creates an awareness of the atmosphere of a subsequent scan, which may be entered into with the help of cognitive coping strategies such as acting or following a routine. There is a possibility, however, that coping strategies, used regularly, might evolve into more rigid forms of rule guided behaviour. The latter may, in turn, promote a sense of detachment in subsequent scans. Acting, for example, may preclude a receptiveness to the subtle emotional signals during First Impressions in the next scan, and a patter of conversation that flows only one way may prevent valuable information from the patient being heard. A high level of involvement may allow each new situation to be started afresh, albeit at the risk of staying on the "emotional roller coaster" of obstetric scanning (Carol, pp.261).

6.2.1.6 Summary of the five ontological stages

In summary, it is clear that on the surface certain overt rules for dealing with each stage may be evident. However, the covert aspects appear to flow seamlessly from one stage to another and change how each stage is dealt with. This change is primarily related to the level of involvement the sonographer adopts at the beginning of the scan, which is then modified throughout subsequent stages. Involvement, in this sense, represents an openness to the atmosphere, or mood, of the shared situation rather than the defining features of what one would consider a "good relationship" (eye contact, touch, a pleasant personality, showing interest, etc.). The covert side of involvement is linked to an attunement to, or emotional resonance with, the patient; a causal basis for which is highlighted in Section 6.4.1.

From a philosophical perspective this attunement is represented by the concept of "being-with;" a phenomenon which exists at a primordial level, but easily becomes concealed in the everyday attitude of self-reflection and distancing. Heidegger (1927/1962) referred to the latter as a "deficient and indifferent" (pp.158) mode of being, characterised by "aloofness, hiding oneself away, or putting on a disguise" (pp.161). In the scenario of the practitioner-patient relationship this may manifest a posture of "cool detachment" (Fallowfield, 1993), "detached concern" (Chambliss, 1996), or a "professional persona." From this point on, empathy must be consciously evoked as a means of connecting with the patient, and, as we have seen, subsequently run the risk of becoming an emotional labour (Hochschild, 1983).

We have also suggested that a level of involvement may represent a particular "style" of scanning. The five temporal stages of a scan lend themselves to interpretation in terms of both rule-based (overt) activity, which is often described by medical models of breaking bad news, and covert (background) activity, which forms the foundation of tacit, intuitive care as described by the nursing profession. In the next section we shall take the notion of "style" one step further and attempt to form a link between a "style of scanning" and the fluctuation between overt and covert activity during a prenatal scan in which bad news arises.

6.3 The ontic phenomenon of style

Our aim in this section is to work out how the individual sonographer deals ontically with each temporal stage of the scan and how the approach to one stage might affect a subsequent stage. The primary goal is to see how this might mould their response to the patient during the stages following Discovery, i.e. those concerned with breaking bad news. Initial questions might be: Does each sonographer have a general level of involvement, i.e. "being-with" which affects the overall approach? Does each sonographer's level of being-with change throughout the stages of the scan? Does the overall level of being-with represent a level of expertise in the emotional aspects of breaking bad news? Are some sonographers more skilled in genuine empathic understanding because of their level of being-with, and is the latter reflected in their general style of scanning?

A particular "style" of scanning is not, we might suggest, something consciously created. Rather it should be viewed as a reflection of the manner in which the immediate, unique situation is attended to through each stage of the scan. In this sense, a sonographer may not be aware that they have a "style" *per se*, let alone how it might affect the way they break bad news. We have seen that breaking bad news involves more than just information giving and have suggested that its success may lie in the ability to provide a level of genuine empathic concern. The latter has been described in terms of emotional resonance, or more philosophically as a result of being-with. It would, therefore, seem appropriate to look at "style" in terms of being-with.

6.3.1 Style as being-with

From the analysis so far, an overall picture emerges reflecting four broad categories of

being-with for the participants in this study. Each category represents a range on a continuum of being-with from low to high. Once again, we must keep in mind that being-with is not something that is acquired, but something that is innate and subsequently gets disguised or concealed so, as Heidegger (1927/1962) points out, "a genuine 'understanding' gets suppressed" (pp.163). Being-with is grounded in a basic openness to the shared situation between sonographer and patient, and thus, although it may, or may not, have been suppressed to some degree, it always retains the potential to be re-discovered.

What follows is a summary of how each participant's style, during the five ontological stages of a scan, reflects a level of being-with in this particular study. The notion of "style," however, should not be taken as a category defining a fixed characteristic of the sonographer in question, i.e. as an "ontological predicate" in the Kantian sense (Kant, 1790/2007, pp.15). Nor should the styles described be seen as separate categories in their own right. Rather, they are ranges on a "continuum of style" formed on the basis of being-with, and represent only the particular style, of the particular sonographer, at that particular point in their career, at the time they took part in this study. This infers that style can necessarily change and that there may be many more ways to "categorise" the styles of other sonographers in terms of being-with. Indeed, a sonographer's style may even fluctuate over the course of a day. As Hollingsworth & Daly-Jones (2003) point out, "In a busy clinic the sonographer will be like a chameleon changing styles according to the current situation" (pp.112). Although this

research.

The names of the styles set out below are simply a reflection of the way in which I (in my capacity as researcher) interpreted the type of involvement exhibited phenomenologically in each of the sonographer's accounts of how they related to their patients when disclosing bad news. Some of the sonographers gave similar descriptions and so they were deemed to reflect a similar style. This was done partly for simplicity, i.e. to illustrate clearly the point that a "range" of styles existed. Indeed, a more detailed range of styles may have been teased out of the data, but it may also have obscured the intended clarity of the message. A description of the style in terms of its name is given at the end of the summaries for each of the sonographers grouped within that style, or for the sonographer in question if only one sonographer exhibited one particular style.

6.3.1.1 Evasive being-with

Ruth: *First impressions* are guided by the assumption that patients lack preparation and hold unrealistic expectations about the scan: that it guarantees normality and that abnormalities will not be detected. *Control* involves an attempt to educate patients, which is invariably thwarted because, in Ruth's words, "they do not listen." *Discovery* represents a reflective period of self-awareness and concentration. *Disclosure* is assessed in terms of how easy or stressful it is for Ruth to break the bad news: easier in early pregnancy but harder later on because of the ambiguity of the findings. *Closure* involves giving the patients their own space. Ruth feels unable to help her patients and that no one else is offering any help. In summary, Ruth finds scanning stressful and her approach is defined by conflict. Her own situated emotions seem to take precedence over those of the patient.

Margaret: *First impressions* involves ascertaining certain facts about the patient and their pregnancy. *Control* is maintained through dialogue and a method of adopting a running commentary prevents interruptions. *Discovery* is about controlling what the patient sees. Margaret's method of scanning, where the patient cannot see her facial expression, prevents her giving away any clues to the findings while she prepares for disclosure. *Disclosure* involves standard opening phrases and cognitively leading the patient to the conclusion that an abnormality is evident. *Closure* focusses on the practicalities of putting the patient on a pathway, as well as professional pride and personal development. In summary, Margaret has developed a style which reflects control and practicality. Emotion appears to play little or no part.

Both Ruth and Margaret maintain a level of distance throughout the scan and each stage is described in terms of the application of rule-based behaviour, effected from an isolated perspective on the situation. In this sense, being-with has an *evasive* mode.

6.3.1.2 Active being-with

Paula: *First impressions* are gained by actively "sussing out" the patient through observation of body language and dialogue. *Control* involves emphasising the screening aspect and maintaining a connection with a general patter of conversation.

Discovery is shocking but her previous patter maintains the flow of the scan. *Disclosure* involves gauging the patient's reaction to ensure understanding by looking for subtle clues. *Closure* centres on deriving satisfaction from creating a pathway for the patient. In summary, Paula is attuned to the patient's mood but uses a routine strategy of maintaining the flow of conversation to create a space in which she can get on with her job. This is also her strategy for moving on to the next patient.

Sue: *First impressions* are characterised by making a connection with the patient, albeit in terms of the objective assessment of body language and gaining information through dialogue. *Control* involves moderating the patient's mood to balance the social and screening aspects of the procedure. An upbeat mood is levelled by reminding the patient of the potential for abnormalities to be detected. *Discovery* is shocking and involves withdrawing to concentrate on the technical aspects. This period of distancing allows Sue to create a pathway for the patient. *Disclosure* is a period during which Sue assesses the patient's response as normal or otherwise. She is satisfied with a "healthy amount of emotion." *Closure* involves maintaining a comfort zone where Sue is satisfied that the patient has been given a suitable pathway. Acting may be required to initiate the next patient interaction. In summary, Sue is attuned to the patient's mood and analyses it objectively to maintain control. Her own satisfaction is measured in terms of the mood she has created.

Both Paula and Sue use certain rules to guide their interaction with the patient, but these are informed by the underlying emotional aspects of the situation. Each copes by using the latter to adjust their coping strategies. In this sense, being-with is *actively* controlled.

6.3.1.3 Engaged being-with

Judith: *First impressions* allow Judith to tune into the patient's general anticipation of a happy event which leads her to promote the social side of the scan. *Control* involves reducing anxiety and evading the potential for abnormalities. *Discovery* is shocking and Judith temporarily withdraws to concentrate on scanning. However, she remains open to the patient's attunement that something might be wrong and will re-engage with them if they ask her specific questions. *Disclosure* is guided by intuition, which allows Judith to choose the appropriate thing to say or convey empathy through touch. She will show that she is upset, but in a controlled way. *Closure* is achieved by putting the patient on a suitable pathway. On a personal level Judith seeks social support from colleagues and tries to block out negative emotions. In summary, Judith attunes herself to the positive aspects of the patient's mood during a routine scan. She remains open to the patient's emotions, and chooses what she considers an appropriate response when bad news is conveyed. This may include showing her own emotions. Negative aspects are generally avoided.

Donna: *First impressions* provide "gut feelings" which change the way Donna reacts to the patient. These can have a positive or negative effect. *Control* is a period of creating a happy medium between the social and diagnostic aspects. *Discovery* is shocking and elicits an automatic mode of scanning. *Disclosure* can be upsetting if a

sense of involvement is felt, but easier if not. Although success, for Donna, depends on the moment, she always follows the maxim of being honest. *Closure* is reached through honesty as well as seeking social support from colleagues. In summary, Donna's initial reaction to the patient changes the mood of the scan and ultimately the way she breaks bad news. There may be an instant like or dislike which makes giving the bad news easier or harder. Donna remains open and honest with the patient.

Alison: *First impressions* are made perceptually, based on past experience, and then modified during the initial interaction. *Control* involves reducing both anxiety and excitement and actively finding out what the patient wants from the scan. The temporal flow of activity is slowed down. *Discovery* is shocking and Alison withdraws from the patient to concentrate and follow a mental checklist. She describes this period as going colder, and infers to the patient that she will become temporarily distant. *Disclosure* is described as the point of returning to the patient and of bringing back the warmth. Alison will share the patient's emotion if it feels appropriate. *Closure* involves putting a pathway in place and reaching a point of completion. The latter may involve following the patient's progress so Alison can be satisfied she has done the best she can for them. In summary, Alison describes an involvement with the patient characterised by a brief period of moving away, followed by return. In this sense being-with gets temporarily suppressed and then revived. Being-with also

Nicola: First impressions are guided by instinct which adapts the interaction and the

mood of the scan changes with each patient. *Control* involves slowing the situation down, reducing excitement and yet respecting anxiety. It is also a period of moving away from the patient. *Discovery* is shocking and evokes strong emotions. *Disclosure* is a period of reconnecting with and focusing on the patient. Nicola controls her own emotions but invariably lets them show. The greater the connection with the patient the more emotional the encounter. *Closure* has no predetermined structure, but simply involves offering support that extends beyond the examination. On a personal level it is about balancing the positives of scanning with the negatives. In summary, Nicola makes an initial connection with the patient which may create a positive or negative atmosphere. She existentially moves away from the patient while scanning in order to reconnect and focus when bad news is given. In other words, being-with is temporarily suppressed. This can be emotional but controlled and is balanced out by positive experiences.

Judith, Donna, Alison and Nicola all reflect a basic emotional attunement with their patients which affects the interaction. This can have positive or negative consequences. Behaviour tends to be guided by intuition, albeit with an element of control. Being-with is manifest as existentially connecting, moving away and returning to the patient throughout the temporal stages. For this to happen being-with must be *engaged* with from the outset.

6.3.1.4 Implicit being-with

Carol: First impressions is described as entering into a relationship with the patient

which initiates a unique level of involvement, experienced as being in a "bubble." *Control* is geared towards setting the scene and creating a suitable atmosphere. *Discovery* is shocking and automatically initiates a "level two" scan characterised by concentration and periods of silence. *Disclosure* is emotional, although, for Carol, being part of the process makes it easier. Disclosure involves tacit, sometimes pre-reflective, responses and acting outside what are considered "professional norms," e.g. not crying. *Closure* involves following the patient up, balancing the positives with the negatives and social support from colleagues as well as family. However, a bad news scan can change the mood of an entire day. In summary, Carol becomes involved in the patient's experience which can be emotionally draining but also rewarding in terms of the positive aspects of scanning. She likens it to being on a roller coaster.

Carol's style reflects letting go of emotional constraints and immersing herself in the patient's experience. Despite this she appears to retain a level of control. Being-with is *implicit* in her directed activity and helps to guide it. At this level, she can fully appreciate the positive as well as the negative aspects of scanning. Carol (pp.263) describes her approach as "holistic."

6.3.2 Style in practice

Might one style of scanning be better than another for breaking bad news? From the summary of the literature surrounding breaking bad news (Section 3.6) we can conclude that a more involved style may promote a higher level of genuine empathic concern, as it is more attuned to the individual patient's emotional needs at the time.

When style is assessed from the perspective of being-with, even the small number of participants in this study illustrate points on a continuum ranging from a low level (Evasive) to a high level (Implicit). On the surface it would seem that a high being-with style promotes satisfaction, whereas a low being-with style promotes dissatisfaction, as reflected in Carol and Ruth's accounts respectively. As Carol said, "I'm a very emotional person... and when it is good news it lifts me up, and I feel 'Oh my god look at that baby'" (line 298, Carol transcript). Whereas Ruth commented, "I'm looking for another job... because I do find it [breaking bad news] extremely stressful to the point where it makes the job unpleasant to do" (line 1072, Ruth transcript).

It is, however, impossible to know how the level of being-with a sonographer exhibits, or in other words their "style," affects the patient's experience. All we can surmise is that a higher level of involvement from the sonographer may be appreciated by the patient, as the literature suggests (Van der Zalm & Byrne, 2006).

6.4 Implications for practice

The discussion so far has suggested that the levels of engagement a sonographer exhibits during each ontological stage may affect the outcome of a bad news scan. For example, if engagement is low from the start (i.e. being-with is evasive or suppressed) then a detached stance may be maintained following Discovery, which could, in turn, obviate a lack of genuine empathic concern. In this scenario the patient's emotional needs may not be met. Conversely, high engagement may allow a connection with the patient to be maintained following Discovery, and their emotional needs being attended to.

We can suggest that the levels of engagement a sonographer exhibits, result from a familiarity with scanning and breaking bad news that has been developed throughout their practice. This has ultimately arisen as a consequence of their individual experiences. Technically, all the participants in this study could be deemed expert practitioners. The question, however, is: to what extent they were experts in the more existential aspects of the encounter, and to what extent this affected the empathic engagement they had with their patients? As we surmised from the literature review, breaking bad news involves both a cognitive information giving aspect as well as an intuitive, background ability to deal appropriately with the patient's emotional needs. The latter, of course, directly affects the patient's experience of receiving bad news.

Before looking at what might constitute emotional expertise it will be worth revisiting the suggestion that such expertise has a causally relevant somatic basis. In the literature review (Section 3.4.2), we hinted that this basis rested on the ability to resonate with the emotions of others (i.e. emotional contagion or EC) (Hatfield, Cacioppo & Rapson, 1993), and to assimilate the feedback from emotionally salient encounters into a neural mechanism which could guide future interactions, i.e the Somatic Marker Hypothesis (SMH) (Damasio, 2006). The latter, of course, constitutes the intuitive component of breaking bad news, which, as we have suggested, is complementary to the cognitive information giving component. A causal basis of empathy will be outlined in the following section as a precursor to understanding what we actually mean by emotional expertise.

6.4.1 A neurobiological model of empathy

One possible mechanism behind emotional contagion may involve so called "mirror neurons," originally found in the brain of the macaque monkey (Gallese et al., 1996). Gallesse and colleagues discovered that identical neurons discharged in the macaque's premotor cortex (PM) when it both performed a motor action (reaching for food) and merely observed the same action being performed. As neural activity represents a causal basis for consciousness (Noe & Thompson, 2004), it is likely that shared neurons lead to shared experiences. On a neurological level, at least, the distinction between observation and action is blurred. In the context of emotions the distinction between observing and feeling may also be blurred, hence the link to emotional contagion. Although single neuron firings have never been measured in humans (apart from one study looking at the effect of a placebo on Parkinson's disease (Benedetti et al., 2004) and an unpublished observation by Iacoboni (2009) in which single neurons with mirror properties were recorded in epileptic patients) evidence for a human mirror neuron system comes from several brain imaging methods: transcranial magnetic stimulation (TMS), electroencephalography (EEG) and magnetoencephalography (MEG) (Rizzolatti & Sinigaglia, 2010).

Research has suggested a link between activity in the premotor and parietal cortices of humans (areas where mirror neurons are thought to exist in the macaque brain) and

understanding the intentions of others (Rizzolatti & Craighero, 2005). In addition, two aspects of empathy that we have already discussed – the ability to experience emotions directly (emotional contagion/resonance) and the ability to infer the emotional states of others by reasoning (theory of mind/mentalising) – have been investigated from a neurological perspective. For simplicity, I have termed the latter aspects of empathy as "emotional resonance" (ER) and "emotional deduction" (ED) respectively.

One suggestion is that empathy begins with emotional resonance, made possible by "shared circuits" in the brains of both parties, which is then mediated by a form of emotional deduction or "perspective taking" (Keysers & Gazzola, 2007). In other words, simulated pre-reflective representations (resonance/ER) can lead to reflective representations in consciousness (deduction/ED) via a process of social introspection. We can draw comparisons between this and aspects of medical breaking bad news research which state that a cognitive appraisal process is necessary to differentiate our own emotions from that of the recipient in order to adopt suitable helping behaviour once emotional resonance has occurred. The important point here is that ER occurs at the pre-reflective level, yet it can influence conscious experience. It forms a background understanding of others, which can inform the deductive process if it is allowed to. That is, if an overly conscious stance of distancing has not already closed it off. Nursing theory talks of remaining open to the situation and of sharing the patient's experience, which suggests that ER is the casual basis of "presencing." We can see that for sonographers to adopt a genuinely empathic approach to breaking bad

news they must remain open to the changing flow of emotions during a scan which ER is sensitive to. Only then can ED lead to suitable helping behaviour.

Emotional resonance (ER) is associated with the limbic structures of the brain, whereas emotional deduction (ED) is associated with the prefrontal cortex (PFC) (Keysers & Gazzola, 2007). This is not surprising as the limbic system is the emotional processing centre of the brain (Carr et al., 2003) while the PFC controls deductive reasoning (Landmann et al., 2007). This suggests that the different processes of empathy outlined by the nursing and medical professions may actually depend on two separate areas of the brain. Nurses focus on ER, intuition and beingwith, while doctors focus on perceptual cues, cognitive deduction and objective behaviour. Separate and distinct it would seem, yet Keysers & Gazzola (2007) implicate both elements in one empathic system. Thus the medical and nursing conceptions of empathy may be thought of as subsets of a unified theory of empathy (philosophically speaking), which would account for both the cognitive and existential elements. This is, once again, highly relevant for sonographers.

6.4.1.1 The mirror basis of empathy

Several imaging studies suggest that a human mirror neuron system is implicated in empathy related tasks, as the PM (which exhibits mirror properties) is often active during such tasks. For example, Enticott et al. (2008), using transcranial magnetic stimulation (TMS), observed that the PM was more active during facial emotional processing than during simple pattern recognition. Similarly, Leslie, Johnson-Frey & Grafton (2004) recorded right PM activity during passive viewing of emotional expressions, whereas bilateral activation occurred during active mimicry. PM activity has also been positively correlated increased social competence in children (Pfeifer et al., 2008). However, children who lack social competence, such as those suffering from autistic spectrum disorder (ASD), exhibit no PM activity whatsoever during action observation (Oberman et al., 2005). Neither do they automatically mimic facial expressions, i.e. undergo rapid facial reactions (RFRs) during emotional encounters (McIntosh et al., 2006).

Mirror neurons, it seems, may be one mechanism by which we gain insights into the thoughts and feelings of others and thus achieve social competence. The motor resonance theory of mind reading would support this idea (Agnew, Bhakoo & Puri, 2007). Social competence and empathy are closely related as both require emotional resonance in order to effect appropriate behaviour in shared situations. Therefore, we could suggest that some form of mirror mechanism may underpin empathic resonance (ER) as well.

To expand this argument, we need to look for associations between activity in the PM during empathy related tasks and other areas of the brain traditionally associated with emotion (i.e. areas of the limbic system). One way to do this is to monitor the amount of oxygen taken up by specific areas of the brain in emotionally salient situations. This can be achieved with functional magnetic resonance imaging (fMRI) recording BOLD (blood oxygen level dependent) effects. Carr et al. (2003) took eleven adults and

showed them pictures of various emotional expressions. Then they asked them to either observe or imitate what they saw while their BOLD responses were measured. The results showed that, in each participant, the same cortical structures were active during both passive observation and imitation tasks. These included the PM, insula and amygdala. The insula and amygdala are both part of the limbic system and involved in processing emotion.

Pfeifer et al. (2008) conducted a similar experiment with a group of sixteen children aged between nine and ten years old. Similarly, they found that the PM, insula and amygdala were simultaneously activated during imitation and observation. They also noticed that *overlapping* areas of neurons were discharging in all three. This suggests that not only are the emotional centres of the brain linked to mirror activity during empathy related tasks, but that neurons other than those in the PM may exhibit mirror properties. Specifically neurons associated with emotions.

Although both the amygdala and insula exhibit mirror properties, it is the latter which is of particular interest. Wicker et al. (2003) discovered that identical areas of the insula were activated when participants both experienced disgust and observed others experiencing disgust using stimuli related to smell. Similarly, Singer et al. (2004) observed overlapping areas of insula activity when their participants both observed and experienced pain. A continuation of the insula, known as the Inferior Frontal Operculum (IFO), has not only shown activation during the observation and experience of taste (Jabbi, Swart & Keysers, 2007) but appears to have a direct link to areas of the brain involved in motor simulation (Brodmann Area 45 (BA45) and the Inferior Frontal Gyrus (IFG)). This link, Jabbi & Keysers (2008) suggest, could provide a shortcut between mirror circuits related to facial expressions and direct emotional experience. This would go some way to suggesting an underlying mechanism for the facial feedback hypothesis (Buck, 1980). Motor simulation may, therefore, account for the mimicked expression which creates the feedback, or alternatively it may reduce the need for overt facial mimicry by activating areas of the brain such as the IFO or insula directly (Jabbi & Keysers, 2008).

So far we have suggested that emotional resonance may involve mirror activity in the premotor and limbic areas, with considerable activity in the insula. Preston & de Waal (2003) proposes a perception-action model (PAM) of empathy, which has been supported by some of the more recent brain imaging studies already mentioned. What Preston & de Waal (2003) suggest is that perception of a behaviour automatically activates one's own representations for that behaviour, and output from this shared representation proceeds to motor areas of the brain where responses are prepared and executed. This process, they say, happens rapidly and occurs below the level of conscious awareness. Mirror neurons would certainly provide a causal basis for the shared representations in this model. Iacoboni & Dapretto (2006) suggest that the main visual input to the human mirror neuron system originates from the posterior sector of the superior temporal sulcus (STS) and that information is sent from here to the premotor cortex (PM) via the inferior parietal lobe (IPL). According to Preston & de Waal (2003) the insula may then relay information from the premotor mirror

neurons directly to the amygdala. This is essentially the mirror basis of empathy.

6.4.1.2 The somatic basis of empathy

So far we have attempted to provide a mechanism for emotional resonance, but have done little to illuminate the actual experience of the resonated emotions in consciousness. To do so we will look at the work of the neurobiologist Antonio Damasio. Damasio (2006) suggests that emotional affects are created by the superposition of images – both direct images and images from memory – and body states in consciousness. Body states are defined as input from various areas of the body to the primary somatosensory cortex (S1). Think back to stepping off the kerb in front of that oncoming vehicle (see Section 3.4.2): signals from your visual cortex activated your amygdala, which then produced a body state that got you out of danger. The question is: how did your amygdala do this?

Damasio (2006) suggests that the amygdala has evolved a pattern of potential neural firings known as innate dispositional representations (Innate DRs), which are related to protecting the organism (you). Your amygdala sent signals, via the autonomic nervous system (ANS), to your skeletal muscles and viscera creating a "get out of danger" reflex action. Your accompanying body state (leaping back onto the kerb) was signalled back to your primary somatosensory cortex and then entered consciousness to be superposed against whatever images you were experiencing at the time (the car speeding by, or prior memories of similar encounters perhaps). This superposition caused you to *feel* an emotion. Damasio (2006) calls this a primary emotion as it

relates to innate dispositional representations. Acquired dispositional representations, on the other hand, come from experience, relate to memory, and produce secondary emotions which can be associated with "gut feelings" when making socially relevant decisions (Gigerenzer, 2007).

The suggestion that the activation of the amygdala via self-contained innate DRs can cause a particular body state to be adopted poses an interesting question: what if the input to the amygdala suggested by the perception-action model (Preston & de Waal, 2003) also created a particular body state? One possible answer is that undergoing a subliminal rapid facial reaction (RFR) in a face-to-face encounter may cause you to automatically experience that person's emotion. Let us reiterate the mechanism by which this may occur: direct perception activates the primary visual cortex which in turn activates mirror circuits in the premotor cortex; the latter triggers the insula/inferior frontal operculum to activate the amygdala which generates an associated body state (a rapid facial reaction may be one aspect of this); the body state, which relates to a particular emotion, is then detected by the primary somatosensory cortex (S1) and made conscious. Akitsuki & Decety (2009) discovered that when one person observed another in pain, their PM, insula, amygdala and S1 were simultaneously activated, suggesting a link between all four areas implicated in the combination of the perception-action model and Damasio's (2006) theory of emotional experience.

Empathy, however, is more than emotional resonance and, as several authors suggest

(Decety & Jackson, 2006; Decety & Batson, 2007; Keysers & Gazzola, 2007; Lamm, Batson & Decety, 2007; Shamay-Tsoory et al., 2010), requires a degree of emotional deduction (ED) in order to invoke helping behaviour. One would expect, considering the fact that areas of the PFC are associated with theory of mind and perspective taking in social situations (Damasio, 2006; Nummenmaa et al., 2008), that activity in this area would be apparent during tasks where perspective taking is required. Indeed this is the case. Mitchell, Banaji & MacRae (2005) found that the medial prefrontal cortex (mPFC) was active when subjects were asked to deduce the emotions of others. Two further studies found that mPFC activity was associated with the social context of a situation, i.e. when observing a second person causing deliberate pain in another (Decety, Michalska & Akitsuki, 2008; Akitsuki & Decety, 2009). Schulte-Ruther et al. (2007) also discovered that the ventral area of the medial prefrontal cortex (vmPFC) was more active when evaluating emotions of others.

Damasio's (2006) investigations on patients with damage to the vmPFC provide some evidence that this area is implicated in making socially relevant decisions. Such decisions could be described as intuitive, relying as much on "gut feelings" (Gigerenzer, 2007), as they do on rational analysis. In fact, weighing up the costs and benefits of every possible action during a social encounter could be an endless and rather fruitless task. When a sonographer has to deal immediately with a distressed patient after giving them bad news, it would not be practical to go through all the possible options – they would simply have to respond. Damasio (2006) suggests that

the vmPFC plays an important role in the latter process. He also suggests that, as a result of vmPFC activity, certain somatic markers (equivalent to gut feelings) may implicitly guide our choices by allowing us to focus on what is relevant in a situation. This is the basis of the Somatic Marker Hypothesis (SMH).

With experience, Damasio (2006) suggests, we learn how to act appropriately in social situations based on the results of previous encounters. Memories of these encounters are stored in various areas of the brain as dispositional representations (DRs) (potential patterns of neural activation). In the SMH model, these DRs engage acquired DRs in the vmPFC, which represent the outcomes of previous encounters, whether good, bad or indifferent. The latter signal the amygdala to create an associated body state which is sensed by the primary somatosensory cortex (S1) and made conscious along with images pertaining to the current situation. In other words, you just get a feeling (i.e. "somatic marker") that you should take a particular course of action. All this happens very quickly and at a pre-conscious level.

Figure 18 represents a "neurobiological model of empathy." This model combines both the medical and nursing conceptions of empathy that are associated with breaking bad news, and, therefore, reflects the position occupied by sonographers during a prenatal scan. Nursing conceptions of empathy embody intuitive responses based on emotional resonance, which is often referred to as "being-attuned" or simply "being-with."



Figure 18. A Neurobiological Model of Empathy.

This model combines emotional resonance (ER), emotional deduction (ED) and intuition (somatic markers). **ER:** Images (mostly of the face) are decoded in the primary visual cortex (V1). The images simultaneously enter consciousness (I) and activate mirror neurons (MNs) in the premotor cortex (PM). Signals from the PM travel via the insula to the amygdala (A), which creates an appropriate body state via the autonomic nervous system. This body state is signalled to the primary somatosensory cortex (S1) and made conscious (B). (I) and (B) are superposed to create an emotional affect. **ED:** acquired dispositional representations (DRs) of previous experiences with emotional faces reside in the visual association cortex (VAC). The latter are deliberately engaged by the ventromedial prefrontal cortex (vmPFC) to create a theory of mind in consciousness. **Intuition:** acquired DRs in the VAC automatically engage the ventral part of the mPFC where acquired DRs relating to the outcomes of similar encounters reside. The latter mediates the amygdala response which leads to a representative body state (or intuitive "gut feeling") in consciousness.

The neurobiological model suggests a causal basis for emotional resonance in terms of mirror circuits and the non-conscious activation of body states leading to affective conscious awareness. It also suggests a framework for understanding intuition based on experience, which is regulated by the medial prefrontal cortex and explained in terms of the somatic marker hypothesis. In addition, the latter guides the conscious perspective taking task of emotional deduction, which is itself, the foundation of the empathic understanding portrayed in the medical models of breaking bad news. This, in turn, provides a background for understanding empathic expertise.

6.4.2 Empathic expertise

The ability to do the appropriate thing, at the appropriate time, in the appropriate way is a mode of expertise reflected by the Aristotelian notion of phronesis (Dreyfus, Dreyfus & Benner, 1996). The latter has been used as a model for the skill involved in nursing practice relating to the caring aspect of the profession (Benner, 2001). Caring is described as an existential skill, as opposed to a technical skill like scanning. We have suggested that it hinges on a level of involvement with patients, particularly in the situation of the prenatal scan, where genuine empathy is something manifest in flow, rather than applied after a period of deliberation.

The five stage model of skill developed by Dreyfus & Dreyfus (1980), and used by Benner (1984) to reflect expertise in nursing care, shows how background practices, developed through experience and incorporated into a familiarity with a situation, arise only after moving from an initial rule-based *novice* mode of engagement to an

intuitive *expert* mode. Benner (1984) also comes to the conclusion that involvement may be the key to achieving expertise in care. "A 'distanced' observer," she says (pp.164), "is less likely to notice subtle changes in patients. Thus, a certain level of commitment and involvement is necessary for expert performance."

6.4.2.1 A model of empathic skill

The five stage model of skill, moving from novice to expert, is outlined in Figure 19. Facing a new situation is akin to being at the Novice level as one has not yet developed a level of familiarity with it. At this stage rules are necessarily followed. To become skilled one must learn to be guided by situational aspects, develop perspectives, become involved and finally be able to intuitively discriminate between situations and simply act appropriately. How one uses the experience of the new situation may affect progression to higher levels. An attitude of avoidance would ultimately lead to indefinite rule based behaviour and a lack of involvement. A certain amount of emotional investment is required to progress towards expertise as emotion provides the feedback as to how well, or badly, one is performing.

A positive emotion reinforces a good performance, whereas a negative emotion encourages us to reject a poor one. (We have already touched upon this concept when we looked at how acquired dispositional representations are formed at a neurobiological level in relation to the emotional outcome of a course of action taken in a social situation (Section 6.4.1): both positive and negative feedback is thought to guide future responses in similar situations.) On the other hand, a lack of emotion may promote indifference and may force us to evaluate that performance in terms of how well we have or have not abided by certain rules, or met particular objective criteria for assessing it. Without involvement, it appears that any progression towards expertise is hindered. "Involvement," Dreyfus & Dreyfus (1996) suggest, "sets the stage for further advancement, while resistance to the frightening acceptance of risk and responsibility can lead to stagnation and ultimately to boredom and regression or withdrawal" (pp.40). To help us understand the Dreyfus & Dreyfus (1996) model of skill (Figure 19) a little better, in terms of how it might relate to a sonographer's ability to break bad news empathically, let us analyse two hypothetical situations.



Figure 19. The five stage model of skill. Adapted from Dreyfus & Dreyfus (1996).

Imagine two possible worlds in which a particular sonographer (Alice) exists. In one world Alice enters obstetric scanning with an underlying sense of involvement with patients (she exhibits emotional resonance). In the other world she enters obstetric

scanning with a low sense of involvement (she exhibits emotional distancing). The events that proceed in both worlds are identical for the two Alices, it is only their levels of involvement which differ.

Involved Alice, when she starts to break bad news (at the *novice* level), may follow certain rules such as "be professional, avoid emotion, offer sympathy and tissues" etc. At this point, so might distant Alice. After a while, both Alices start to notice that in some situations certain rules work while others do not: an angry patient, for example, may not want sympathy or tissues, or a patient who is upset may want a reassuring hug. Such observations develop into maxims which are relevant to particular types of situation. Maxims might work for an *advanced beginner*.

With more experience and more maxims, both Alices might start to realise that each situation differs a little from the previous one, and that grouping maxims according to situational type and applying them accordingly will never guarantee success. They must, therefore, develop a perspective on the immediate situation which is merely informed by the success or failure of similar previous encounters. However, without a *guarantee* of success in the immediate, concrete situation both Alices will be forced to take a risk and choose what they think might be the most suitable course of action. The risk may pay off and, if it does, they will both feel good about what they did. Alternatively the risk will not pay off and they will both feel bad. At the *competent* level, the latter emotional reinforcement is the key to progression. This may work for involved Alice, but distant Alice might see the emotional consequences of her actions

as too traumatic, or not see them at all, and may subsequently revert back to maxim or rule following. Distant Alice will remain at either the *advanced beginner* or *novice* level in her possible world.

Involved Alice, on the other hand, may progress to become a *proficient* communicator of bad news. Her openness to the emotional salience of the situation and the positive and negative rewards of her decisions (previously informed by perspectives) allow her to gain a deeper understanding of the situation she faces when a patient has to be given bad news. Certain courses of action will simply stand out as more appropriate, and she may get a gut feeling (somatic marker) as to which one to choose based on her attunement to the patient's emotion state. She will, however, still have to make a decision about what to do, albeit an intuitive one.

With enough experience, and a willingness to ride the "emotional roller coaster" inherent in an involved style (as Carol described it), involved Alice could attain a level of *expertise*. At this point, she would resonate with both the patient's emotional state and the atmosphere, or "mood" of the situation, to use a Heideggerian term (Heidegger, 1929/1995). The situation would be discriminated as one which simply brought a particular course of action into being. This would be a purely "phronetic" response, reflecting a practical wisdom or mastery of it. Reaching out and holding a patients hand without consciously acknowledging what one had done may be one example, as Carol described.

From the moment we are born we are involved with others on an emotional level and this, according to Damasio (2006), is how we develop the social skills necessary for existing within a particular culture. As we encounter the rewards and punishments related to our interactions we develop certain dispositional responses to familiar situations. The Somatic Marker Hypothesis suggests a causal basis as to how these dispositions might work. As the five stage model of skill suggests, certain initial rules may be necessary: hitting our siblings is bad, but sharing our toys is good, for example. The emotional rewards and benefits that follow, as subsequent situations are encountered, eventually elicit the appropriate response.

By the time sonographers start their training they should already be experts in the social interactions of their culture. On a cross cultural level, they, like all humans, posess an ability to recognise, share, and respond appropriately to a set of core emotions encountered in general situations (Ekman, Friesen & Hager, 1978). However, the scenario of breaking bad news during a prenatal scan is an entirely new situation. The majority of those who have reached a level of technical proficiency and are on their way to becoming experts, will suddenly find themselves at the novice level when it comes to breaking bad news empathically. Of course, some sonographers will be more dispositionally attuned to being empathic in social situations than others, probably as a result of their previous life experiences; but as we have suggested, the critical moment of a bad news scan causes the situation to temporarily break down, so even a tacit empathic disposition may become suppressed. With this in mind, learning to break bad news empathically may be considered as a skill which has to be

undertaken from a novice level, although it will, to some degree, be supported by the underlying empathic skills developed from previous life experiences. One question we must consider is how can such underlying skills be first identified and then encouraged during a sonographer's training?

6.4.2.2 Scanning style and empathic skill

Let us look again at scanning style in terms of being-with and how this relates to developing an empathic skill for breaking bad news. With an Evasive style, the actions of the *novice* are evident. Ruth, for example, was guided by the belief that patients did not understand the reasons for the scan (context free feature) and that they should be educated (rule). Margaret, too, followed the rule of *talk while you scan* and precluded contextual features such as reading emotional expression, by facing away from the patient. When we use the term "novice" to reflect a level of empathic skill, we are merely describing a set of characteristics which fall within a particular range on a continuum of associated skills (Figure 20).

These skills, in turn, are developed on the basis of an underlying continuum of "involvement" (encompassing emotional resonance and "being-with"), which underpins the shared situation with the patient. In this respect the categories of novice, competent, advanced beginner, and expert are somewhat artificial. This, as we mentioned earlier, is the same for the apparent categorisation of empathic style, from Active to Implicit, which is also on a continuum (see Section 6.3.1). For all such categories, whether they relate to empathic skill or empathic style, the same situation

holds. The categories are merely there to illustrate particular ranges of a continuum into which the phenomenon under investigation happens to fall. Needless to say there will be an overlap between categories and the potential for many more categories to be developed along the way.



Figure 20. *The relationship between scanning style and the continuums of empathic resonance and skill.*

With this in mind, we can say that the Active style of scanning exhibits features of the *advanced beginner* and *competent* levels of empathic expertise. Situational aspects such as mood and body language are used to modify the interaction. There is also a level of emotional engagement that is missing in the Evasive style. This helps to provide a perspective from which scanning can take place (although there may be both positive and negative consequences). It also provides feedback for reinforcing good practice, evident when an encounter went well. Sonographers with an Engaged style reflect the *proficient* level of empathic skill as intuitive decisions are often reached, albeit with a level of conscious control. With an Implicit style, however, decision

making may be replaced to some extent by the pre-reflective action of the empathic "*expert*." The affordances of the situation may simply elicit a response, illustrated by Carol tacitly holding the patient's hand without an immediate awareness of what she had done. Here we can see a comparison with the Aristotelian phronemous, as described by Dreyfus, Dreyfus & Benner (1996) in the following paragraph:

"When an individual becomes a master of his culture's practices or a professional practice within it, he or she no longer tries to do what *one* normally does, but rather responds out of a fund of experience in the culture and in the specialised practice. This requires enough experience to give up following rules and maxims dictating what *anyone* would do, and, instead, acting upon the intuition that results from a life in which talent and sensibility have allowed learning from the experience of satisfaction and regret in similar situations. Authentic caring in this sense is common to the Paulian *agape* and Aristotelian *phronemous*." (pp.274).

Carol, did indeed describe acting outside what she considered "professional norms," and equated this with breaking bad news successfully. We can see that developing a skill, such as breaking bad news, requires a level of attunement to a situation that goes beyond context free rules such as those advocated by SPIKES (Baile et al., 2000). The notions of punishment and reward outlined by the Somatic Market Hypothesis (Damasio, 2006) and the feeling of success and failure inherent in the Five Stage Model of Skill Acquisition (Dreyfus, 2004), which make learning any skill possible, may be reflected in the environment in which a novice sonographer first learns to deal with giving bad news. A stance of being cool and detached - advocated by current protocols - may lead to a lack of emotional engagement and hinder the development of

genuine empathic skill. A willingness to accept the negative emotional consequences of breaking bad news may, however, develop it, especially if a positive emotion results from a successful encounter.

A pertinent question to ask at this point is: could personality also play a part? This suggestion was alluded to by some of the participants in the study. As Nicola (pp.254) said, "I think people that go into ultrasound, they really want to do it. There are reasons why they want to do it, you see I really like the interaction with the patients. That's why I did it." The answer, however, depends on what one defines as personality: is it a fixed property of the individual or something altogether more mutable? And this brings us back to the ontological argument of what constitutes the essence of a human being (see Section 3.2). Thus, to escape the substance ontology of Descartes, we should follow Heidegger's (1927/1962) existential argument and declare that personality is not a fixed property of the individual, but rather a reflection of a particular style of being-in-the-world in general.

Heidegger's argument suggests that personality is manifest in what the individual does at a particular time under a particular set of circumstances. It is a reflection of their self-interpretation in terms of an existential projection towards a future for-the-sakeof-which, and evident in their skilful comportment within the unique, concrete situation. The ability to tune into another's emotions is a basic human skill - as we have suggested frequently throughout this thesis - and one that may be suppressed by a sonographer's approach to giving bad news during a prenatal scan. When
considering personality in terms of suitability for becoming a sonographer, perhaps one should look for an openness to experience rather than particular traits.

The results from this study suggest that some sonographers may remain at the *novice* level, their actions characterised by detachment and their approach to breaking bad news ultimately remaining a struggle. Others may find a level of attunement that at least keeps the situation moving forward and be at the *advanced beginner* or *competent* levels. When intuition plays a part, *proficiency* might be attained. The analysis suggests that the highest level of attunement brings about a level of empathic expertise that mirrors the actions of the *expert*. An awareness of the ontological structure of a prenatal scan may, however, open up possibilities of improvement for those at the novice, advanced beginner, or competent levels, as situational aspects could be highlighted and strategies developed for dealing with them. Benner, Tanner & Chesla (1996) point out that the development of an emotional attunement to the situation and the skill of interpersonal involvement are critical to moving to the *proficient* and *expert* stages.

Benner and colleagues (1996) also suggest that one way of developing the potential for emotional attunement is to encourage practitioners to share their experiences with each other. In addition, they say that, "Planned consultation and support groups for dealing with developing the skills of involvement and for dealing with suffering and grief could be helpful at all experiential levels" (pp.140). Indeed, debreifing sessions for nurses, following traumatic encounters with patients, can engender a sense of

closure on the situation and allow them to move on and progress in their careers (Keene et al., 2010). This is something that the sonographers in this particular project have described on a more informal level. Those who mentioned seeking social support from colleagues, generally by sharing their experiences in an impromptu moment over coffee or after work, were the ones who exhibited a higher degree of involvement in their approach to breaking bad news. They also appeared to be more satisfied with their professional role. Only Ruth and Margaret, whom we have suggested reflected a form of *Evasve Being-with* (i.e. a low level of involvement), made no reference to such support-seeking behaviour. The role that social support plays in obstetric ultrasound, and the possible advantages of a more structured form of debreifing following the communication of bad news, are two areas that possibly warrant further research.

So far we have dealt with the information giving aspect of breaking bad news as an essentially cognitive task, whereas genuine empathic understanding has been deemed a more intuitive process. Yet even information giving, according to Benner, Tanner & Chesla (1996), can be improved by developing a better emotional attunement to the situation. Nurses, for example, should, they suggest, not be blindly driven by the ethical principal of *always* telling the truth: instead they should feel the demand for timing and being oriented to what the patient can understand. This would certainly be a useful skill during a bad news scan. What we have seen, however, is that rather than relying on a feeling (or somatic marker, perhaps) for how the news should be delivered, practitioners are encouraged to cognitively assess a woman's coping style

prior to giving the unwanted information (Lalor, Begley & Galavan, 2008). One could argue that such deliberation would waste valuable time, and that a skilled comportment towards breaking bad news would be far more efficient than a skilled evaluation.

Nurses, like sonographers, often have to be cautious of the amount and type of information they give to their patients in order to minimise their distress. The latter, however, would seem difficult to quantify. Benner, Tanner & Chesla (1996) suggest, rather, that there is a "qualitative distinction between deception and humane sharing of information that fits the request and understanding of the patient" (pp.120). A proficient or expert nurse should be able to tune into that distinction and effect an appropriate response. In addition, it is the concrete, ontic, first-person experience of similar situations that makes such an attunement possible. This takes time and a willingness to remain receptive to one's own emotions. What applies to the nurse could equally apply to the sonographer.

We might conclude that the sonographers who took part in this study reflected a range of scanning styles based on being-with, which determined their level of involvement throughout each stage of a prenatal ultrasound scan. All were technical experts, but each of their individual styles appeared to exhibit a level of empathic skill somewhere between novice and expert. What we must factor into this analysis is the consideration that, for the most part, each participant had developed their own way of breaking bad news, without any formal model of training. In this sense they were all pioneers, many of them having moved through the period of non-disclosure to disclosure that occured during the past two decades. That sonographers are best placed to to disclose bad news during a prenatal scan is something that has only recently been recognised by the Royal College of Gynaecologists and Obstetricians (RCOG, 2010). All we can suggest, for now, is that what they have achieved has been highlighted in this research and together with the elucidation of the ontological structure underpinning a prenatal scan, may offer some insights into how training of new recruits may be developed.

6.5 Discussion summary

In light of the interpretative methodology used, developed from an engagement with the literature surrounding breaking bad news and ultimately refined in terms of its philosophical underpinnings, the discussion has yielded certain insights into the difficult task sonographers face when an abnormality is detected during a routine prenatal ultrasound scan. The scan itself has been endowed with an ontological structure from which the participants' accounts were seen as reflecting a level of "being-with" their patients. Being-with, or in layman's terms "involvement," was depicted as a certain style of scanning which could range from from *evasive* to *implicit*. On the whole, an evasive style reflected a degree of emotional detachment and dissatisfaction within the participants, whereas an implicit style encouraged involvement and increased satisfaction.

These findings are, however, specific to the sonographers that took part in in the study and the result of a two-fold interpretation of the phenomenon of breaking bad news during a prenatal ultrasound scan. The participants essentially provided their own interpretation of events, which I then interpreted in my capacity of phenomenological researcher. To generalise these particular findings to a wider population may, therefore, be unwise - at least until further research had been carried out. The underlying structure of the scan could, itself, form the basis of this future research as it provides a perspective on the way that a "normal scan" develops into a "bad news scan." This is in addition to the consequences of how such normal scans are approached, particularly in relation to a sonographer's "style."

When the style of scanning, in terms of being-with, is compared to empathic expertise - based on a five stage model of skill - there appear to be possible implications for future training. All we can say, for now, is that new recruits may be predisposed to a more novice/evasive style due to the novel situation they face: they have no familiar experiences from which dispositions for them to act in a certain way will have developed. Perhaps the way they are trained could develop such dispositions and open up the possibility of progression towards an expert empathic approach. How this would be effected is, for now, uncertain, although it may lie in providing suitable feedback in certain scenarios. Future research may indeed reveal a way forward.

CHAPTER 7 Conclusion

7.1 Revisiting the aims of the research

In the beginning our aims were twofold: on a practical level we wanted to find out how sonographers break bad news and identify what constitutes good or bad practice as a foundation for developing future training; on a philosophical level we wanted to understand the experience of breaking bad news during a prenatal scan, what it meant for the sonographers, and how they coped in the crucial few moments following the detection of an abnormality. Did we succeed? In hindsight, our practical aims may have been skewed by a sense of false optimism, created in part by the popular paradigm for researching such a topic: cognitivism. It was cognitivism, in the guise of stress, appraisal and coping theory (Lazarus & Folkman, 1984), that laid the foundations for current advice on breaking bad news in the healthcare setting. This advice suggests that the process of breaking bad news can be operationalised, grounded in rules and universally applied. It was against this background understanding of breaking bad news that the existence of "good" or "bad" practice was postulated. In other words, it was supposed that experienced sonographers might reveal some universal truth about how bad news should be communicated during a scan. This was not the case.

It became apparent, particularly in light of the literature, that rules for breaking bad news would never account, nor provide a basis for a genuinely empathic approach: the latter being something that patients appear to value. In fact, a genuinely empathic approach from the news-giver seemed to be at the heart of a successful transaction according to research from the patient's perspective. Rather than searching for rules, the research began to focus on discovering the underlying structure of a scan, which might, in turn, account for such an approach. This brings us to our second aim, namely, to understand the experience of breaking bad news from the sonographer's perspective. It was in the experience of breaking bad news that the underlying structure of a prenatal scan lay hidden. An interpretative phenomenological approach was adopted to access this structure by allowing the sonographers' stories to transport us to that originary, direct experience; the experience of being in the shared, concrete situation with the patient at the critical moment an abnormality was discovered and bad news had to be given. In the realisation of our second aim, a more appropriate foundation for understanding the training needs of sonographers was revealed. This foundation rests on the notion of empathic skill which, as this project suggests, evolves from a willingness to remain open to the shared situation as opposed to closing it off in rules and normative frames of practice.

7.2 What the research reveals

Interpretative phenomenology, using the IPA method from a Heideggerian perspective, proved successful in providing an understanding of what it means to break bad news during a prenatal scan. This was partly due to the insights gained from Heidegger's (1927/1962) fundamental ontology, which suggests that all human activity occurs on a shared background and that human beings are essentially connected rather than separate. The latter argument is the argument against Cartesianism (ergo cognitivism) and postulates the existential structure of being-with as an ontological necessity. Here

the "background" is of primary importance, as it suggests that factors other than those of which we are conscious are responsible for the outcome of a great deal of human interaction. The non-conscious background, in other words, makes the conscious foreground possible. In our quest to understand the underlying structure of breaking bad news during a prenatal scan, it was the background that led us to the notion of the temporal flow of experience and how the critical moment of discovery was characterised consciously as shock. The background suggested that empathy entailed more than acting, that it was based on an implicit connection grounded in emotional resonance and that this, in turn, could lead to intuitive empathic concern for a patient. The background pointed us in the direction of neuroscience, which allowed us to understand intuitive empathic concern in terms of the somatic marker hypothesis (Damasio, 2006), as well as leading to the development of a model of empathy (the neurobiological model) which suggests that experience is the key to the success of communicating bad news in a way that minimises the patient's distress.

The above approach revealed several things: that all prenatal scans appear to have a similar five stage temporal structure, whether they turn out to be "good news" or "bad news" scans; that genuine empathic concern potentially underlies every bad news transaction when it is perceived as the natural capacity for human emotional resonance ("being-with"), and may fluctuate over the five temporal stages of a scan; that sonographers (in this study at least) exhibit scanning "styles" categorised by a level of being-with on a continuum from *evasive* (low) to *implicit* (high); that a particular style of scanning reflects a level of empathic expertise; and that being-with, in terms of

emotional resonance, appears to have neurological correlates in the brain which has ultimately led to the development of a neurobiological model of empathy. We shall now briefly discuss the above points.

7.2.1 A five stage temporal model of the prenatal scan

The interpretation of the experiences of the nine sonographers who took part in this project revealed a five-stage temporal structure to a prenatal ultrasound scan. The stages were described as: First Impressions, Control, Discovery, Disclosure, and Closure. This structure gave rise to varying levels of involvement from the participants in each stage. The term "being-with" was used to categorise this involvement ontologically, as it provided the basis for both an attunement to the mood of the scan and the patient's emotional disposition. From here, the mood of the scan could be levelled, and an intuitive form of empathy could be effected following the disclosure of bad news.

The five stages may have practical as well as existential relevance for sonographers. For example, the importance of prior information about patients and consent are highlighted in the initial stages, and it seems that the adoption of an ultrasound consent form may be of value. Regaining the flow of the examination following the discovery stage may be facilitated by having information for the patient to hand, and a definite pathway for them to follow. What the stages show on a practical level are points where preparation may be advantageous. This also applies existentially. For example, acknowledging the way the atmosphere of a scan can change throughout the five stages, particularly when bad news is evident, may allow sonographers to pay heed to their own emotions as well as those of the patient, thus facilitating a continuous and mutually beneficial interaction, as opposed to one that breaks down if a posture of "detached concern" (Chambliss, 1996) is adopted. It is impossible to provide rules for how sonographers should approach the five stages, as this would differ with not only each sonographer, but each new situation they faced. The stages are merely a guide, they offer no more than an awareness that all scans have the potential to be bad news scans, and that the first few stages of each are structurally identical.

7.2.2 A model of scanning style and empathic skill

Each of the participants exhibited a level of being-with which reflected a scanning style, ranging from *evasive* (detached) to *implicit* (involved), and this dictated their attunement to the patient's needs throughout the five temporal stages of the scan. As the Discovery stage necessitated temporary detachment, those with a more implicit style of scanning appeared to find it easier to reconnect with their patients during the Disclosure stage and ultimately remain more empathic than those who exhibited an evasive style. This style appeared to correlate with a level of empathic skill, based on the five stage model of skill developed by Dreyfus & Dreyfus (1980). When we think of scanning style in terms of a continuum of empathic skill it becomes clear that both style and skill have the potential for change. This bodes well for both training new recruits and for critical reflection by experienced sonographers on their current practice.

7.2.3 A neurobiological model of empathy

This model is important in the sense that it combines several aspects of the research which initially appeared disparate. For example, the cognitive empathy of medical models of breaking bad news and the emotional empathy of nursing models of care share a fundamental foundation. It is, after all, the ventromedial preformation cortex (vMPFC) which appears to be implicated in both the perspective taking of the former and the intuitive responses of the latter. It is also implicated in the progression of empathic skill from a novice to an expert level, as it is responsible for the acquired dispositions to respond to particular social dilemmas appropriately. In the ultrasound scenario, the sonographer's dilemma, according to Hollingsworth & Daly-Jones (2003), "... is the personal effect on the practitioner in the event of the unexpected abnormality and how he/she comes to terms with the situation" (pp.110). The latter is based on the experience of rewards and punishments that were effected by particular courses of action in similar situations. This inevitably requires an emotional grasp of the immediate, concrete situation; something reflected in progression from competence to proficiency, and ultimately to expertise. Here, the neurobiological model highlights the importance of emotional resonance in the breaking bad news scenario. For without emotional resonance, without a tangible level of "being-with" so to speak, a sonographer may be unable to attune to themselves to the atmosphere of a scan and grasp the emotional salience of the situation. In other words, their particular "style" of scanning might preclude the necessary sense of emotional involvement required to develop empathic skill. Of course, they may already have a style conducive to developing such skill.

The question that the neurobiological model poses, is to what extent a sonographer's style of scanning becomes "fixed" in terms of the acquired dispositions to respond to particular situations (or patients for that matter) in a particular way. Indeed, such dispositions may be encoded in brain activity as potential patterns of neural firings, but as the brain exhibits plasticity in relation to learning (Maino, 2009), such patterns could undoubtedly be subject to change. However, the automaticity of the dispositions, which the neurobiological model suggests are often based on subliminal perceptual cues (rapid facial reactions for example), means that a sonographer who is set in a familiar routine may not be consciously aware that they even have a style *per se*, let alone have the volition to change it. There is the possibility that future neuroscientific reseach may help by finding correlations between the particular patterns of neural activity encoded in dispositional representations and the style of scanning a sonographer exhibits.

Perhaps this is one area in which the neurobiological model offers a contribution to the development of empathic skill: as a template for understanding the mechanisms of empathic progression, and if required, change. As Benner (1984) points out, even experts face novel situations and occasionally have to rely on analytical thinking in order to demonstrate new knowledge and understanding. The neurobiological model, by providing a unified explanation of how seemingly rational decisions about how to deliver bad news can be intuitively informed by a background of tacit empathic understanding, may, therefore, be considered as a vehicle for reflection and change in professional practice.

7.3 What the research contributes

When we take into account the three models proposed by this research - the five stage temporal model, the model of scanning style, and the neurobiological model of empathy - we can perceive the implications that this has in the world of prenatal scanning. When scanning style is equated with empathic skill, there is scope for showing how a genuinely empathic style of breaking bad news might be developed. In short, this could entail encouraging an openness to the situation and an acceptance of the emotional consequences - both good and bad - before a level of emotional expertise might be attained.

One area which has been highlighted as helping sonographers to accept the negative emotional consequences of breaking bad news is the level of informal social support inherent in their daily practice. The latter is something which has evolved alongside the task of breaking bad news itself. In addition to enhancing already established practices, there may be implications for training future sonographers, where providing the correct environment and suitable feedback could place new recruits on a pathway towards developing their own genuinely empathic style of breaking bad news.

Prior to this research there was little evidence as to how sonographers approached breaking bad news during a prenatal scan. The scan itself was not conceptualised as a phenomenon in its own right, let alone one that has an ontologically significant as well as an existentially relevant structure. This structure may now act as a guide for developing the skills of breaking bad news in a genuinely empathic way. We have also acquired a model of empathy which maps onto the five stage temporal structure of a scan, is related to a continuum of empathic skill, and manifests a particular scanning style. Together, the above contributions may offer an avenue for finding a solution to the training needs of new recruits, which was one of the original aims of this project. In addition, the existential, phenomenological approach developed herein offers an alternative to the more customary search for objective and quantifiable truths about breaking bad news. As the latter still appears to be a popular method for research into breaking bad news, the findings of this study may offer a way forward for those researchers trapped within the Cartesian paradigm, in particular, those who have yet to see the value of interpretative analysis from a Heideggerian perspective.

The contributions of this research primarily offer a way forward. This was, after all, an exploratory study hoping to build some foundation for understanding the sonographer's task of breaking bad news during a prenatal scan. It has thus provided a perspective from which future research might be undertaken. We shall briefly look at some of the ways in which this might happen.

7.4 Recommendations for future research

Although an awareness of the basic structure of a prenatal scan may help sonographers to develop breaking bad news skills - in the sense that they can reflect on their own openness to the situation, receptivity to the patients' emotions, and consider the latter in terms of progressing from novice to expert in the development of empathic skill - far more work is needed before, for example, a formal training model might be developed. Research may need to target sonographers at various stages in their training to see whether they do indeed reflect stages of empathic skill ranging from novice to expert. This could be qualitative, quantitative, or both.

Other research might target a broader range of experienced sonographers to see if they reflect particular "scanning styles" ranging from *evasive* to *implicit* in terms of beingwith. An in-depth, qualitative study may, however, not be suitable for such an exercise as response rates for this particular project were relatively low. On the other hand, research incorporating a more focused form of questioning, in the style of a survey perhaps, may attract higher numbers and provide a broader picture on a larger scale. The latter may also help to illuminate the perspectives of sonographers working within certain trusts, and to what level the culture of the workplace has influenced their "style" of scanning and, therefore, how they approach the task of breaking bad news. This does not rule out the fact that an additional, in-depth, qualitative study using newly qualified sonographers may provide an insight into what attracted them to the profession and how they reconciled this with the potential for breaking bad news.

From a neuroscientific perspective, Magnetoencephalography (MEG) may be a useful tool in terms of advancing the neurobiological work outlined in this research as MEG images the brain with sufficient temporal resolution to map cortical activity as it dynamically changes on a millisecond-by-millisecond basis. For example, MEG can be used to record the time it takes between visceral/somatic stimulation and its registration in the brain (Hobson et al., 2005) which is relevant for testing the

neurobiological model of empathy in terms of the somatic marker hypothesis. MEG can also map the spatial and temporal activation of brain regions as participants watch video displays in real-time. This is how Braeutigam et al. (2001) followed the sequence of neural activation implicated in making real-life decisions (in this case, choosing supermarket products) from the initial stimulation of the primary visual cortex (at 90ms), through the left temporal cortex (at 325ms), Broca's area (at 510ms), and finally to the right parietal cortex (at 885ms). This means that MEG may be suitable for sequencing the neural events suggested by the perception-action component of the neurobiological model, especially as recent developments allow the detection of activity in sub-cortical structures like the amygdala (Attal et al., 2012). In the case of rapid facial reaction perception leading to emotional resonance, the sequence may include the following structures: visual cortex, motor cortex, insula, amygdala, and somatosensory cortex (see Figure 18).

In relation to gender differences, MEG reveals the fact that females have greater motor cortex stimulation than males when observing the actions of others (Cheng et al., 2006), suggesting a more prolific mirror neuron response. This supports the idea that there are gender specific neural mechanisms related to empathy tasks. Females often exhibit enhanced reliance on a human mirror neuron system, whereas males show stronger recruitment of theory of mind associated cortical areas (Schulte-Ruther et al., 2008). These findings suggest that MEG may be useful for studying both the mirror component of the neurobiological model of empathy and to what extent the latter underpins the approach taken by female and male sonographers in relation to the

task of breaking bad news.

A novel way of researching the way sonographers break bad news would be to conduct a MEG study and compare the results to the theories developed as part of the current project. For example, sonographers could watch videos of both normal and abnormal scans (i.e. the images they would observe on the ultrasound monitor) and the temporal and spatial aspects of their neural activity measured and correlated to the events on the screen. One could then ask such questions as: what type of activity is characteristic of the critical moment of discovery? Do different types of anomoly invoke different levels of activation (a raised nuchal translucency compared to the absence of a foetal heartbeat, for example)? Or, how does activity change when an abnormal scan is preceded by ten normal scans, as opposed to ten abnormal scans? There are many potential combinations. With the advent of interactive ultrasound training software, which uses virtual reality images generated by the sonographer's movement of the transducer on a mannequin (Banker, Pedersen & Szabo, 2008), a more realistic environment may be created for the study.

The above method, would serve to illustrate certain automated neural responses concerned with abnormality detection in terms of the ultrasound scan data, but not in terms of the emotional connection with the patient. Perhaps, then, an additional MEG study could investigate what happens when sonographers view videos of both good and bad news scans, acted out with simulated patients (SPs). (SPs are often used to recreate real world environments in medical breaking bad news research (Vail et al., 2010).) The videos, to add a sense of realsim, could me made from a first-person point of view. Differences in brain activity could then be measured for a variey of different scenarios: emotional patient, unresponsive patient, angry patient, patient accompanied by partner, patient accompanied by children, patients at different stages of gestation, with different foetal anomalies etc. The MEG data from the interactional study could be combined with that from the scanning study to produce a broader picture of the neurological mechanisms at work in a breaking bad news scenario. Again, gender differences could be considered in each.

As for more immediate and practical matters affecting those sonographers who are currently breaking bad news to women, broader research methods might focus on the structure of informal social support that seemingly exists within ultrasound departments today. Perhaps this could be with a view to formalising it into the more structured type of debreifing which exists in many other of the health professions that deal with stressful and often traumatic situations. This may be one small step towards giving sonographers the recognition that many of the participants in this study felt they deserved, for the difficult task they face in breaking bad news during a routine prenatal scan.

7.5 Final thoughts

I shall end on a reflective note. My position, as researcher, has been central to this study in terms of its methodological considerations. I have set myself up as both philosopher in terms of the perspective from which the study was undertaken, and collector and interpreter with respect to the data harvested. My interaction with the participants has also affected the type of data generated. What, then, has my position been?

I was trained as a general radiographer, much like the participants in the study. In this respect we share a elements of a similar world. However, I work in magnetic resonance imaging (MRI), and they in ultrasound. Indeed, there exists a level of familiarity between our worlds, in terms of the language of medical imaging and the environment in which it is undertaken, but there are differences in our daily practices with respect to the level of involvement we have with patients. I am physically remote from the patient when I scan them, whereas a sonographer maintains a close physical and dynamic relationship with the patient. This, I feel, has given me both a level of familiarity with the sonographers' world and yet placed me at a suitable distance, with respect to the culture of prenatal ultrasound, from which to conduct this research.

My position, therefore, has been more ethnographic than reflexive. I am not a sonographer so I knew nothing of what it meant to break bad news during a prenatal scan, and I had no opinions based on personal experience with which to guide my analysis of this phenomenon at the beginning of this project. This has helped me to avoid a personal conflict with, and criticism of the sonographers' accounts of their daily practice. It has allowed their stories to emerge unjaded by any perspective I may have had, had I entered this project from the "inside," i.e. from within of the "culture" of prenatal ultrasound. I have only been an ethnographer in the sense that "...

ethnography refers to the tradition of cultural description and analysis that displays meanings by interpreting meanings" (Thomas, 1993, pp.4). This has been at the heart of my methodology. All I did was temporarily shift my position from one camp within the world of medical imaging to another, and to borrow the perspectives of those within it, to let their stories be heard. Hopefully, by entering the hermeneutic circle "in the right way," I have reflected, with a genuine understanding, the sonographer's experience of breaking bad news during a routine prenatal ultrasound examination.

References

- Abramsky, L. & Chapple, J. (2003). *Prenatal diagnosis: the human side*. Nelson Thornes, Cheltenham, UK.
- Agnew, Z. K.; Bhakoo, K. K. & Puri, B. K. (2007). "The human mirror system: A motor resonance theory of mind-reading." *Brain Research Reviews*, vol. 54, no. 2, pp. 286-293.
- Ahman, A.; Runstam, K. & Sarkadi, A. (2010). "Did I really want to know this? Pregnant women's reaction to detection of a soft marker during ultrasound screening." *Patient Education & Counselling*, vol. 81, no. 1, pp. 87-93.
- Akitsuki, Y. & Decety, J. (2009). "Social context and perceived agency affects empathy for pain: An event-related fMRI investigation." *Neuroimage*, vol. 47, no. 2, pp. 722-734.
- Alexander, D. A. (2000). "Bad news is bad news: let's not make it worse." *Trauma*, vol. 2, no. 1, pp. 11-18.
- Alexander, J. M. (2007). *The Structural Evolution of Morality*. Cambridge University Press, Cambridge, UK.
- Alhusen, J. L. (2008). "A literature update on maternal-fetal attachment." *JOGNN*, vol. 37, no. 3, pp. 315-328.
- Alkazaleh, F.; Thomas, M.; Grebenyuk, J.; Glaude, L.; Savage, D.; Johannesen, J.; Caetano, M. & Windrim, R. (2004). "What women want: women's preferences of caregiver behavior when prenatal sonography findings are abnormal." *Ultrasound in Obstetrics & Gynecology*, vol. 23, no. 1, pp. 56-62.
- Ambady, N.; LaPlante, D.; Nguyen, T.; Rosenthal, R.; Chaumeton, N. & Levinson, W. (2002). "Surgeons' tone of voice: A clue to malpractice history* 1." *Surgery*, vol. 132, no. 1, pp. 5-9.
- Ambrose, S. H. (2001). "Paleolithic technology and human evolution." *Science*, vol. 291, no. 5509, pp. 1748-1753.
- Andermann, A.; Blancquaert, I.; Beauchamp, S. & Dery, V. (2008). "Revisiting Wilson and Jungner in the genomic age: a review of screening criteria over the past 40 years." *Bulletin of the World Health Organization*, vol. 86, no., pp. 317-319.
- Arber, A. & Gallagher, A. (2003). "Breaking bad news revisited: the push for negotiated disclosure and changing practice implications." *International Journal* of *Palliative Nursing*, vol. 9, no. 4, pp. 166-172.

Ashworth, P. (2003). "The origins of qualitative psychology." In: Smith, J. (Ed.),

Qualitative Psychology. Sage.

- Attal, Y.; Maess, B.; Friederici, A. & David, O. (2012). "Head models and dynamic c a u s a l m o d e l i n g o f s u b c o r t i c a l a c t i v i t y u s i n g magnetoencephalographic/electroencephalographic data." *Reviews in the Neurosciences*, vol. 23, no. 1, pp. 85-95.
- Bagaric, V. & Mihaljevic-Djigunovic, J. (2007). "Defining Communicative Competence." *METODIKA*, vol. 8, no. 1, pp. 94-103.
- Baile, W. F.; Buckman, R.; Lenzi, R.; Glober, G.; Beale, E. A. & Kudelka, A. P. (2000). "SPIKES - a six-step protocol for delivering bad news: application to the patient with cancer." *Oncologist*, vol. 5, no. 4, pp. 302-311.
- Baile, W. F.; Buckman, R.; Schapira, L. & Parker, P. A. (2006). "Breaking bad news: more than just guidelines." *Journal of Clinical Oncology*, vol. 24, no. 19, pp. 3217-3218.
- Baillie, C.; Hewison, J. & Mason, G. (1999). "Should ultrasound scanning in pregnancy be routine?." *Journal of Reproductive & Infant Psychology*, vol. 17, no. 2, pp. 149-157.
- Baillie, C.; Smith, J.; Hewison, J. & Mason, G. (2000). "Ultrasound screening for chromosomal abnormality: Women's reactions to false positive results." *British Journal of Health Psychology*, vol. 5, no. 4, pp. 377-394.
- Banker, C.; Pedersen, P. & Szabo, T. (2008). "Interactive Training System for Medical Ultrasound." 2008 IEEE Ultrasonics Symposium Proceedings, pp. 1350-1354, Beijing, China.
- Barber, M. (2010). "Alfred Schutz." In: Zalta, E. N. (Ed.), *The Stanford Encyclopedia* of *Philosophy*. Metaphysics Research Lab, Stanford University, CA, USA.
- Barnett, M. M.; Fisher, J. D.; Cooke, H.; James, P. R. & Dale, J. (2007). "Breaking bad news: consultants' experience, previous education and views on educational format and timing." *Medical Education*, vol. 41, no. 10, pp. 947-956.
- Basama, F. M. S.; Leonard, B. & Leighton, M. (2004). "Audit: women's perception and knowledge of the 20 weeks anomaly scan." *Journal of Obstetrics & Gynaecology*, vol. 24, no. 1, pp. 44-46.
- Benedetti, F.; Colloca, L.; Torre, E.; Lanotte, M.; Melcarne, A.; Pesare, M.; Bergamasco, B. & Lopiano, L. (2004). "Placebo-responsive Parkinson patients show decreased activity in single neurons of subthalamic nucleus." *Nature neuroscience*, vol. 7, no. 6, pp. 587-588.
- Benner, P. (2001). "Uncovering the knowledge embedded in clinical nursing practice." In: AM, R. & M, T. (Ed.), *Exemplary Research For Nursing and Midwifery*,

Routledge.

- Benner, P. (1984). From Novice to Expert: Excellence and Power in Clinical Nursing Practice. Addison-Wesley Publishing Company, California, USA.
- Benner, P. (2000). "The roles of embodiment, emotion and lifeworld for rationality and agency in nursing practice." *Nursing Philosophy*, vol. 1, no. 1, pp. 5-19.
- Benner, P. A. (1994). Interpretive phenomenology: embodiment, caring, and ethics in health and illness. Sage Publications, Thousand Oaks, California, USA.
- Benner, P. E.; Hooper-Kyriakidis, P. L. & Stannard, D. (1999). *Clinical Wisdom and Interventions in Critical Care: A Thinking-in-action Approach*. Saunders Book Company, USA.
- Benner, P. E.; Tanner, C. A. & Chesla, C. A. (1996). *Expertise in Nursing Practice: Caring, Clinical Judgment, and Ethics*. Springer Pub Co, New York, USA.
- Benner, P. E. & Wrubel, J. (1989). *The Primacy of Caring: Stress and Coping in Health and Illness*. Addison-Wesley, California, USA.
- Bicchieri, C. & Muldoon, R. (2011). "Social Norms." In: Zalta, E. N. (Ed.), *The Stanford Encyclopedia of Philosophy*. Metaphysics Research Lab, Stanford University, CA, USA.
- Bourdieu, P. (1989). "Social Space and Symbolic Power." *Sociological Theory*, vol. 7, no. 1, pp. 14-25.
- Bourdieu, P. (1972/2003). *Outline of a Theory of Practice*. Cambridge University Press, Canbridge, England.
- Boyd, P.; Edwards, J.; Wright, D.; Nix, B.; Ball, S.; Baker, A.; Williams, P. & Ward, P. (2009). An audit of antenatal ultrasound scans from 22 hospitals in England and Wales during 2007: Report on behalf of the NHS Fetal Anomaly Screening Programme. NHS Fetal Anomaly Screening Programme, England.
- Braeutigam, S.; Stins, J.; Rose, S.; Swithenby, S. & Ambler, T. (2001). "Magnetoencephalographic signals identify stages in real-life decision processes." *Neural Plasticity*, vol. 8, no. 4, pp. 241-254.
- Braun, V. & Clarke, V. (2006). "Using thematic analysis in psychology." *Qualitative Research in Psychology*, vol. 3, no. 2, pp. 77-101.
- Bricker, L.; Garcia, J.; Henderson, J.; Mugford, M.; Neilson, J.; Roberts, T. & Martin, M. A. (2000). "Ultrasound screening in pregnancy: a systematic review of the clinical effectiveness, cost-effectiveness and women's views." *Health Technology Assessment*, vol. 4, no. 16, pp. i-vi, 1-193.
- Britt, D. W.; Risinger, S. T.; Mans, M. K. & Evans, M. I. (2002). "Devastation and

relief: conflicting meanings of detected fetal anomalies." *Ultrasound in Obstetrics & Gynecology*, vol. 20, no. 1, pp. 1-5.

- Brocki, J. M. & Wearden, A. J. (2006). "A critical evaluation of the use of interpretative phenomenological analysis (IPA) in health psychology." *Psychology & Health*, vol. 21, no. 1, pp. 87-108.
- Brooks, F. & Phillips, D. (1996). "Do women want women health workers? Women's views of the primary health care service." *Journal of Advanced Nursing*, vol. 23, no. 6, pp. 1207-1211.
- Bryant, L. (2008). "Breaking bad news." Practice Nurse, vol. 35, no. 5, pp. 37-42.
- Bryant, L.; Green, J. & Hewison, J. (2001). "Prenatal screening for Down's syndrome: some psychosocial implications of a 'screening for all' policy." *Public Health*, vol. 115, no. 5, pp. 356-358.
- Bryant, L.; Hewison, J. & Green, J. (2005). "Attitudes towards prenatal diagnosis and termination in women who have a sibling with Down's syndrome." *Journal of Reproductive and Infant Psychology*, vol. 23, no. 2, pp. 181-198.
- Bryant, L. D.; Bown, N.; Bekker, H. L. & House, A. (2007). "The lure of patient choice." *The British Journal of General Practice*, vol. 57, no. 543, pp. 822-826.
- Buck, R. (1980). "Nonverbal behavior and the theory of emotion: The facial feedback hypothesis." *Journal of Personality and Social Psychology*, vol. 38, no. 5, pp. 811-824.
- Buckman, R. (1992). *How to Break Bad News. A Guide for Healthcare Professionals*. John Hopkins University Press, Maryland, USA.
- Butler, A. (2008). *Training Resource to Support the Implementation of the 18 to 20 Week Mid Pregnancy Ultrasound Scan*. NHS Fetal Anomaly Screening Programme: Education and Training Sub-group, London, UK.
- Canale, M. & Swain, M. (1980). "Theoretical bases of com-municative approaches to second language teaching and testing." *Applied linguistics*, vol. 1, no. 1, pp. 1-47.
- Carolan, M. & Hodnett, E. (2007). "Discovery of soft markers on fetal ultrasound: maternal implications." *Midwifery*, vol., no., pp. 654-664.
- Carolan, M. C. (2008). "Towards understanding the concept of risk for pregnant women: some nursing and midwifery implications.." *Journal of Clinical Nursing*, vol. 18, no. 5, pp. 652-658.
- Carr, L.; Iacoboni, M.; Dubeau, M. C.; Mazziotta, J. C. & Lenzi, G. L. (2003). "Neural mechanisms of empathy in humans: a relay from neural systems for imitation to limbic areas." *Proceedings of the National Academy of Sciences*, vol. 100, no. 9,

pp. 5497-5502.

- Chambliss, D. F. (1996). Beyond caring: Hospitals, nurses, and the social organization of ethics. University of Chicago Press, Chicago, USA.
- Chan, G. K. (2005). "Understanding end-of-life caring practices in the emergency department: developing Merleau-Ponty's notions of intentional arc and maximum grip through praxis and phronesis." *Nursing Philosophy*, vol. 6, no. 1, pp. 19-32.
- Cheng, Y.; Tzeng, O.; Decety, J.; Imada, T. & Hsieh, J. (2006). "Gender differences in the human mirror system: A magnetoencephalography study." *Neuroreport*, vol. 17, no. 11, pp. 1115-1119.
- Chiarelli, A.; Mai, V.; Halapy, E.; Shumak, R.; O'Malley, F. & Klar, N. (2005). "Effect of Screening Result on Waiting Times to Assessment and Breast Cancer Diagnosis." *Canadian Journal of Public Health*, vol. 96, no. 4, pp. 259-263.
- Chomsky, N. (1965). *Aspects of the Theory of Syntax*. The M.I.T. Press, Cambridge, Massachusetts, USA.
- Cohen-Solal, A. (1991). Sartre: A life. Mandarin Paperbacks, London, England.
- Colaizzi, P. F. (1978). "Psychological research as the phenomenologist views it.." In: Valle, R. S. & King, M. (Ed.), *Existential Phenomenological Alternatives for Psychology*. Oxford University Press.
- Cooper M. & McLeod, J. (2007). "A pluralistic framework for counselling and psychotherapy: Implications for research." *Counselling and Psychotherapy Research*, vol. 7, no. 3, pp. 135-143
- Cope, C.; Lyons, A.; Donovan, V.; Rylance, M. & Kilby, M. (2003). "Providing letters and audiotapes to supplement a prenatal diagnostic consultation: effects on later distress and recall." *Prenatal Diagnosis*, vol. 23, no. 13, pp. 1060-1067.
- Csikszentmihalyi, M. (1991). *Flow: The psychology of optimal experience*. Harper Perennial, New York, USA.
- Cuthbert, K. & Simpson, R. (2006). "Breaking bad news during pregnancy and early life." *The Journal of Health Care Chaplaincy*, vol. 7, no. 2, pp. 55-58.
- Dahl, K.; Kesmodel, U.; Hvidman, L. & Olesen, F. (2006). "Informed consent: providing information about prenatal examinations." *ACTA Obstetricia et Gynecologica Scandanavica*, vol. 85, no. 12, pp. 1420-1425.
- Damasio, A. (2006). *Descartes' Error*. Vintage Books, London.
- Damasio, A. (2010). *Self Comes to Mind: Constructing the conscious brain*. Pantheon Books, New York, USA.

- Darwin, C. (1872). *The expression of the emotions in man and animals*. Uiversity of Chicago Press, Chicago, USA.
- Davies, V.; Gledhill, J.; McFadyen, A.; Whitlow, B. & Economides, D. (2005). "Psychological outcome in women undergoing termination of pregnancy for ultrasound-detected fetal anomaly in the first and second trimesters: a pilot study." Ultrasound in Obstetrics & Gynecology, vol. 25, no. 4, pp. 389-392.
- Dawkins, R. (2006). *The Selfish Gene (30th Anniversary Edition)*. Oxford University Press, Oxford, England.
- Decety, J. & Batson, C. D. (2007). "Social neuroscience approaches to interpersonal sensitivity." *Social Neuroscience*, vol. 2, no. 3, pp. 151-157.
- Decety, J. & Jackson, P. L. (2006). "A social-neuroscience perspective on empathy." *Current Directions in Psychological Science*, vol. 15, no. 2, pp. 54-58.
- Decety, J.; Michalska, K. J. & Akitsuki, Y. (2008). "Who caused the pain? An fMRI investigation of empathy and intentionality in children." *Neuropsychologia*, vol. 46, no. 11, pp. 2607-2614.
- Department of Health, (2007). Cancer Reform Strategy. The Stationery Office, London.
- Descartes, R. (1637/2003). *Discourse on Method and Meditations*. (Translated by: Haldane, E.S. and Ross, GRT) Dover Philosophical Classics, New York, USA.
- Detraux, J. J.; Gillot-de Vries, F.; Vanden Eynde, S.; Courtois, A. & Desmet, A. (1998). "Psychological impact of the announcement of a fetal abnormality on pregnant women and on professionals." *Annals of the New York Academy of Sciences*, vol. 847, no., pp. 210-219.
- Dias, L.; Chabner, B. A.; Lynch, Thomas J, J. & Penson, R. T. (2003). "Breaking bad news: a patient's perspective." *Oncologist*, vol. 8, no. 6, pp. 587-596.
- Dimberg, U. & Thunberg, M. (1998). "Rapid facial reactions to emotional facial expressions." *Scandinavian Journal of Psychology*, vol. 39, no. 1, pp. 39-45.
- Dosanjh, S.; Barnes, J. & Bhandari, M. (2001). "Barriers to breaking bad news among medical and surgical residents." *Medical Education*, vol. 35, no. 3, pp. 197-205.
- Dow, A. W.; Leong, D.; Anderson, A. & Wenzel, R. P. (2007). "Using theater to teach clinical empathy: a pilot study." *Journal of General Internal Medicine*, vol. 22, no. 8, pp. 1114-1118.
- Dreyfus, H. (2000). "Could anything be more intelligible than everyday intelligibility? Reinterpreting Division I of Being and Time in the light of Division II." In: Faulconer, J. E. & Wrathall, M. A. (Ed.), *Appropriating Heidegger*, Cambridge

University Press, New York, USA.

- Dreyfus, H. (1986). A phenomenology of skill acquisition as the basis for a Merleau-Pontian non-representationalist cognitive science, [Online]. Available from: http://socrates.berkeley.edu/~hdreyfus/ [Accessed: 01.09.09]
- Dreyfus, H. & Dreyfus, S. (1996). "The relationship of theory and practice in the acquisition of skill." In: Benner, P. E.; Tanner, C. A. & Chesla, C. A. (Ed.), *Expertise in Nursing Practice*. Springer, New York, USA.
- Dreyfus, H. & Dreyfus, S. (1980). "A five-stage model of the mental activities involved in directed skill acquisition." *Unpublished report supported by the Air Force Office of Scientific Research (AFSC), USAF (Contract F49620-79-0063)*, University of California at Berkeley. Available from: www.dtic.mil [Accessed: 01/07/11]
- Dreyfus, H.; Dreyfus, S. & Benner, P. (1996). "Implications of the Phenomenology of Expertise for Teaching and Learning Everyday Skillful Ethical Comportment."In: Benner, P.; Tanner, C. & Chesla, A. (Ed.), *Expertise in Nursing Practice*, Springer, New York, USA.
- Dreyfus, H. L. (1991). Being-in-the-world: a commentary on Heidegger's Being and *Time, Division I.* MIT Press, Cambridge, USA.
- Dreyfus, S. E. (2004). "The Five-Stage Model of Adult Skill Acquisition." *Bulletin of Science, Technology & Society*, vol. 24, no. 3, pp. 177-181.
- Dunniece, U.; Slevin, E. & Slevin, E. (2000). "Nurses' experiences of being present with a patient receiving a diagnosis of cancer." *Journal of Advanced Nursing*, vol. 32, no. 3, pp. 611-618.
- Durkheim, E. (1897/1970). "La conception materialiste de l'histoire." In: Filloux, J. (Ed.), *La science sociale et l'action*, Presses Universitaires de France, Paris.
- Durkheim, E. (1961). *The Elementary Forms of the Religious Life*. (Translated by: Swain, J.) Collier, New York, USA.
- Durkheim, E. (1984). *The Division of Labor in Society*. (Translated by: Halls, W.D.) The Free Press, New York, USA.
- Durkheim, E. (1897/1951). *Suicide: A Study in Sociology*. (Translated by: Spalding, J.A. and Simpson, G.) The Free Press, New York, USA.
- Eberhardt McKee, T. L. & Ptacek, J. T. (2001). "I'm Afraid I Have Something Bad to Tell You: Breaking Bad News From the Perspective of the Giver." *Journal of Applied Psychology*, vol. 31, no. 2, pp. 246-273.

Eggly, S.; Penner, L.; Albrecht, T. L.; Cline, R. J.; Foster, T.; Naughton, M.; Peterson,

A. & Ruckdeschel, J. C. (2006). "Discussing bad news in the outpatient oncology clinic: rethinking current communication guidelines." *Journal of Clinical Oncology*, vol. 24, no. 4, pp. 716-719.

- Ekelin, M.; Crang-Svalenius, E. & Dykes, A.-K. (2004). "A qualitative study of mothers' and fathers' experiences of routine ultrasound examination in Sweden." *Midwifery*, vol. 20, no. 4, pp. 335-344.
- Ekman, P. (1993). "Facial expression and emotion." *American Psychologist*, vol. 48, no. 4, pp. 384-392.
- Ekman, P.; Friesen, W. & Hager, J. (1978). *Facial action coding system*. Consulting Psychologists Press, Palo Alto, CA, USA.
- Enticott, P. G.; Johnston, P. J.; Herring, S. E.; Hoy, K. E. & Fitzgerald, P. B. (2008). "Mirror neuron activation is associated with facial emotion processing." *Neuropsychologia*, vol. 46, no. 11, pp. 2851-2854.
- Ericsson, K.; Prietula, M. & Cokely, E. (2007). "The making of an expert." *Harvard business review*, vol. 85, no. 7/8, pp. 114-121.
- Erikson, S. (2007). "Fetal Views: Histories and Habits of Looking at the Fetus in Germany." *Journal of Medical Humanities*, vol. 28, no. 4, pp. 187-212.
- EUROCAT (2009). Special Report: The Status of Health in the European Union: Congenital Malformations. EUROCAT Central Registry, University of Ulster, UK.
- Fallowfield, L. (1993). "Giving sad and bad news." *Lancet*, vol. 341, no. 8843, pp. 476-478.
- Fisher, G. A. & Chon, K. K. (1989). "Durkheim and the social construction of emotions." *Social Psychology Quarterly*, vol. 52, no. 2, pp. 1-9.
- Fjelland, R. & Gjengedal, E. (1994). "A theoretical Foundation for Nursing as a Science." In: Benner, P. A. (Ed.), *Interpretive phenomenology: embodiment, caring, and ethics in health and illness*. Sage Publications.
- Folkman, S.; Lazarus, R. S.; Dunkel-Schetter, C.; DeLongis, A. & Gruen, R. J. (1986). "Dynamics of a stressful encounter: cognitive appraisal, coping, and encounter outcomes." *Journal of Personality and Social Psychology*, vol. 50, no. 5, pp. 992-1003.
- Fransen, M. P.; Wildschut, H.; Vogel, I.; Mackenbach, J.; Steegers, E. & Essink-Bot, M.-L. (2009). "Information about prenatal screening for Down syndrome: Ethnic differences in knowledge." *Patient Education and Counseling*, vol. 77, no. 2, pp. 279-288.

- Friedrichsen, M. & Milberg, A. (2006). "Concerns about losing control when breaking bad news to terminally ill patients with cancer: physicians' perspective." *Journal of Palliative Medicine*, vol. 9, no. 3, pp. 673-682.
- Froslev-Friis, C.; Hjort-Pedersen, K.; Henriques, C.; Krogh, L. & Garne, E. (2011). "Improved prenatal detection of chromosomal anomalies.." *Danish medical bulletin*, vol. 58, no. 8, pp. 1-5.
- Gallese, V.; Fadiga, L.; Fogassi, L. & Rizzolatti, G. (1996). "Action recognition in the premotor cortex." *Brain*, vol. 119, no. 2, pp. 593-609.
- Garcia, J.; Bricker, L.; Henderson, J.; Martin, M.-A.; Mugford, M.; Nielson, J. & Roberts, T. (2002). "Women's Views of Pregnancy Ultrasound: A Systematic Review." *Birth*, vol. 29, no. 4, pp. 225-250.
- Garfinkel, H. & Sacks, H. (1970). "On Formal Structures of Practical Actions." In: McKinney, J. & Tiryakian, E. (Ed.), *Theoretical Sociology: Perspectives and Developments*, Appleton-Century-Crofts.
- Garg, A. & Buckman, R. (1997). "Teaching medical students how to break bad news." *CMAJ: Canadian Medical Association Journal*, vol. 156, no. 8, pp. 1159-1164.
- Georgsson Ohman, A.; Saltvedt, S.; Waldenstrom, R.; Grunewald, C. & Olin-Lauritzen, S. (2006). "Pregnant Women's Responses to Information About an Increased Risk of Carrying a Baby with Down syndrome." *Birth*, vol. 33, no. 1, pp. 64-73.
- Georgsson Ohman, S.; Grunewald, C. & Waldenstrom, U. (2009). "Perception of risk in relation to ultrasound screening for Down's syndrome during pregnancy." *Midwifery*, vol. 25, no. 3, pp. 264-276.
- Getz, L. & Kirkengen, A. L. (2003). "Ultrasound screening in pregnancy: advancing technology, soft markers for fetal chromosomal aberrations, and unacknowledged ethical dilemmas." *Social Science & Medicine*, vol. 56, no. 10, pp. 2045-2057.
- Gigerenzer, G. (2007). *Gut feelings: Short cuts to better decision making*. Lane, England.
- Giorgio, A. & Giorgio, B. (2003). "Phenomenology." In: Smith, J. (Ed.), *Qualitative Psychology*. Sage.
- Girgis, A. & Sanson-Fisher, R. W. (1998). "Breaking bad news 1: Current best advice for clinicians." *Behavioral Medicine*, vol. 24, no. 2, pp. 53-59.
- Glasberg, A.; Eriksson & Norberg (2007). "Burnout and 'stress of conscience' among healthcare personnel." *Journal of Advanced Nursing*, vol. 57, no. 4, pp. 392-403.
- Glover, V.; Bergman, K.; Sarkar, P. & O'Connor, T. (2009). "Association between

maternal and amniotic fluid cortisol is moderated by maternal anxiety." *Psychoneuroendocrinology*, vol. 34, no. 3, pp. 430-435.

- Glynn, L. M.; Schetter, C. D.; Hobel, C. J. & Sandman, C. A. (2008). "Pattern of perceived stress and anxiety in pregnancy predicts preterm birth." *Health Psychology*, vol. 27, no. 1, pp. 43-51.
- Goffman, E. (1956). "Embarrassment and Social Organization." *American Journal of Sociology*, vol. 62, no. 3, pp. 264-271.
- Goffman, E. (1959). The presentation of self in everyday life. Anchor Books, USA.
- Goffman, E. (2003). "On face-work: An analysis of ritual elements in social interaction." *Reflections: The SoL Journal*, vol. 4, no. 3, pp. 7-13.
- Goffman, E. & Best, J. (2005). *Interaction Ritual: Essays in Face-to-Face Behaviour*. Transaction Publishers, New Jersey, USA.
- Gordon, L.; Thornton, A.; Lewis, S.; Wake, S. & Sahhar, M. (2007). "An evaluation of a shared experience group for women and their support persons following prenatal diagnosis and termination for a fetal abnormality." *Prenatal Diagnosis*, vol. 27, no. 9, pp. 835-839.
- Gottfredsdottir, H.; Bjornsdottir, K. & Sandall, J. (2009). "How do prospective parents who decline prenatal screening account for their decision? A qualitative study." *Social Science & Medicine*, vol. 69, no. 2, pp. 274-277.
- Green, J. M.; Hewison, J.; Bekker, H. L.; Bryant, L. D. & Cuckle, H. S. (2004). "Psychosocial aspects of genetic screening of pregnant women and newborns: a systematic review." *Health Technology Assessment*, vol. 8, no. 33, pp. 1-109.
- Gudex, C.; Nielsen, B. L. & Madsen, M. (2006). "Why women want prenatal ultrasound in normal pregnancy." *Ultrasound in Obstetrics & Gynecology*, vol. 27, no. 2, pp. 145-150.
- Haddow, J. E.; Palomaki, G. E.; Canick, J. A. & Knight, G. J. (2009). "Prenatal screening for open neural tube defects and Down's syndrome." In: Rodeck, C. H. & Whittle, M. J. (Ed.), *Fetal medicine: basic science and clinical practice*, Elsevier Health Sciences.
- Hammond, I.; Franche, R.; Black, D. & Gaudette, S. (1999). "The radiologist and the patient: Breaking bad news." *Canadian Association of Radiologists Journal*, vol. 50, no. 4, pp. 233-236.
- Hatfield, E.; Cacioppo, J. T. & Rapson, R. L. (1993). "Emotional contagion." *Current Directions in Psychological Science*, vol., no., pp. 96-99.

Hatfield, G. (2003). Routledge Philosophy Guidebook to Descartes and the

Meditations. Routledge, USA.

- HCN (1999). *Population Screening Act: Prenatal Screening and Risk Perception*. Health Council of the Netherlands: Committee on the Population Screening Act, The Hague, Netherlands.
- Heath, H. (1998). "Reflection and patterns of knowing in nursing." Journal of Advanced Nursing, vol. 27, no. 5, pp. 1054-1059.
- Heidegger, M. (1929/1995). The Fundamental Concepts of Metaphysics: World, Finitude, Solitude. (Translated by: McNeil, W. & Walker, N.) Indiana University Press, Bloomington, Indiana, USA.
- Heidegger, M. (1985). *History of the Concept of Time*. (Translated by: Kisiel, T) Indiana University Press, Bloomington, Indiana, USA.
- Heidegger, M. (1927/1962). *Being and Time*. (Translated by: Macquarrie, J. and Robinson, E.) Blackwell Publishing Ltd., Oxford, England.
- Henderson, A. (2001). "Emotional labor and nursing: an under-appreciated aspect of caring work." *Nursing Inquiry*, vol. 8, no. 2, pp. 130-138.
- Hildingsson, I. & Radestad, I. (2005). "Swedish women's satisfaction with medical and emotional aspects of antenatal care." *Journal of Advanced Nursing*, vol. 52, no. 3, pp. 239-249.
- Hobson, A.; Furlong, P.; Worthen, S.; Hillebrand, A.; Barnes, G.; Singh, K. & Aziz, Q. (2005). "Real-time imaging of human cortical activity evoked by painful esophageal stimulation." *Gastroenterology*, vol. 128, no. 3, pp. 610-619.
- Hochschild, A. R. (1983). *The managed heart: commercialization of human feeling*. Berkeley : University of California Press, USA.
- Hollingsworth, J. & Daly-Jones, E. (2003). "The Sonographer's Dilemma." In: Abramsky, L. & Chapple, J. (Ed.), *Prenatal Diagnosis: The Human Side*, Nelson Thornes, Cheltenham, UK.
- Holloway, I. & Todres, L. (2003). "The Status of Method: Flexibility, Consistency and Coherence." *Qualitative Research*, vol. 3, no. 3, pp. 345-357.
- HPC (2008). *Standards of conduct, performace and ethics*. Health Professions Council, London, England.
- Hundt, G. L.; Sandall, J.; Spencer, K.; Heyman, B.; Williams, C.; Grellier, R.; Pitson, L. & Tsouroufli, M. (2008). "Experiences of first trimester antenatal screening in a one-stop clinic." *British Journal of Midwifery*, vol. 16, no. 3, pp. 156-159.
- Hunfeld, J.; Leurs, A.; De Jong, M.; Oberstein, M. L.; Tibben, A.; Wladimiroff, J.; Wildschut, H. & Passchier, J. (1999). "Prenatal consultation after a fetal anomaly

scan: videotaped exploration of physician's attitude and patient's satisfaction." *Prenatal Diagnosis*, vol. 19, no. 11, pp. 1043-1047.

- Husserl, E. (1982). *Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy*. (Translated by: Kersten, F.) Kluwer, Dordrecht, Netherlands.
- Hymes, D. (2001). "On communicative competence." In: Duranti, A. (Ed.), *Linguistic* anthropology: A Reader, Blackwell Publishers, Oxford, UK.
- Iacoboni, M. (2009). "Imitation, Empathy and Mirror Neurons." *Annual Review of Psychology*, vol. 60, no., pp. 653-670.
- Iacoboni, M. & Dapretto, M. (2006). "The mirror neuron system and the consequences of its dysfunction." *Nature Reviews Neuroscience*, vol. 7, no. 12, pp. 942-951.
- Iyengar, S. (2011). The Art of Choosing. Abacus, London, UK.
- Jabbi, M. & Keysers, C. (2008). "Inferior frontal gyrus activity triggers anterior insula response to emotional facial expressions." *Emotion*, vol. 8, no. 6, pp. 775-780.
- Jabbi, M.; Swart, M. & Keysers, C. (2007). "Empathy for positive and negative emotions in the gustatory cortex." *Neuroimage*, vol. 34, no. 4, pp. 1744-1753.
- James, W. (1884). "What is an Emotion?." Mind, vol. 9, no. 34, pp. 188-205.
- Jenkins, J. (1998). "Which pronunciation norms and models for English as an International Language?." *ELT journal*, vol. 52, no. 2, pp. 119-126.
- Kant, I. (1790/2007). *The Critique of Judgement*. (Translated by: Meredith, J.C.) Oxford University Press, Oxford, UK.
- Karpinski, A. & Hilton, J. (2001). "Attitudes and the Implicit Association Test.." *Journal of Personality and Social Psychology*, vol. 81, no. 5, pp. 774-788.
- Kash, K. M.; Holland, J. C.; Breitbart, W.; Berenson, S.; Dougherty, J.; Ouellette-Kobasa, S. & Lesko, L. (2000). "Stress and burnout in oncology." *Oncology-Huntington*, vol. 14, no. 11, pp. 1621-1632.
- Keene, E.; Hutton, N.; Hall, B. & Rushton, C. (2010). "Bereavement debriefing sessions: An intervention to support health care professionals in managing their grief after the death of a patient." *Pediatric Nursing*, vol. 36, no. 4, pp. 185-189.
- Keysers, C. & Gazzola, V. (2007). "Integrating simulation and theory of mind: from self to social cognition." *Trends in Cognitive Science*, vol. 11, no. 5, pp. 194-196.
- Kierkegaard, S. (1849/1989). *The Sickness unto Death: A Christian Psychological Exposition of Edification and Awakening by Anti-Climacus*. (Translated by: Hannay, Alastair) Penguin Group, USA.

- Kirwan, D. (2010). *The NHS Fetal Anomaly Screening Programme 18+0 to 20+6 Weeks Fetal Anomaly Scan National Standards and Guidance for England*. NHS Fetal Anomaly Screening Programme, England.
- Koch, T. (1995). "Interpretive approaches in nursing research: the influence of Husserl and Heidegger." *Journal of Advanced Nursing*, vol. 21, no. 5, pp. 827-836.
- Koch, T. (1996). "Implementation of a hermeneutic inquiry in nursing: philosophy, rigour and representation." *Journal of Advanced Nursing*, vol. 24, no. 1, pp. 174-184.
- Kohner, N. & Henley, A. (2001). When a baby dies: the experience of late miscarriage, stillbirth, and neonatal death. Routledge, London.
- Korenromp, M. J.; Christiaens, G. C. M. L.; Van den Bout, J.; Mulder, E. J. H.; Bilardo, C. M.; Offermans, J. P. M. & Visser, G. H. A. (2005). "Long-term Psychological Consequences of Pregnancy Termination for Fetal Abnormality: A Cross-sectional Study.." *Prenatal Diagnosis*, vol. 25, no., pp. 253-260.
- Kowalcek, I. (2007). "Stress and anxiety associated with prenatal diagnosis." *Best Practice & Research Clinical Obstetetrics & Gynaecology*, vol. 21, no. 2, pp. 221-228.
- Kowalcek, I.; Muhlhoff, A.; Bachmann, S. & Gembruch, U. (2002). "Depressive reactions and stress related to prenatal medicine procedures." *Ultrasound in Obstetrics & Gynecology*, vol. 19, no. 1, pp. 18-23.
- Lalor, J. & Begley, C. (2006). "Fetal anomaly screening: what do women want to know?." *Journal of Advanced Nursing*, vol. 55, no. 1, pp. 11-19.
- Lalor, J.; Begley, C. M. & Galavan, E. (2009). "Recasting Hope: A process of adaptation following fetal anomaly diagnosis." *Social Science & Medicine*, vol. 68, no. 3, pp. 462-472.
- Lalor, J. & Devane, D. (2007). "Information, knowledge and expectations of the routine ultrasound scan." *Midwifery*, vol. 23, no. 1, pp. 13-22.
- Lalor, J. G.; Begley, C. M. & Devane, D. (2006). "Exploring painful experiences: impact of emotional narratives on members of a qualitative research team.." *Journal of Advanced Nursing*, vol. 56, no. 6, pp. 607-616.
- Lalor, J. G.; Begley, C. M. & Galavan, E. (2008). "A grounded theory study of information preference and coping styles following antenatal diagnosis of foetal abnormality." *Journal of Advanced Nursing*, vol. 64, no. 2, pp. 185-194.
- Lalor, J. G.; Devane, D. & Begley, C. M. (2007). "Unexpected Diagnosis of Fetal Abnormality: Women's Encounters with Caregivers." *Birth: Issues in Perinatal Care*, vol. 34, no. 1, pp. 80-88.

- Lamm, C.; Batson, C. D. & Decety, J. (2007). "The neural substrate of human empathy: effects of perspective-taking and cognitive appraisal." *Journal of Cognitive Neuroscience*, vol. 19, no. 1, pp. 42-58.
- Landmann, C.; Dehaene, S.; Pappata, S.; Jobert, A.; Bottlaender, M.; Roumenov, D. & Le Bihan, D. (2007). "Dynamics of prefrontal and cingulate activity during a reward-based logical deduction task." *Cerebral Cortex*, vol. 17, no. 4, pp. 749-759.
- Langewitz, W. (2007). "Beyond content analysis and non-verbal behaviour,ÄîWhat about atmosphere? A phenomenological approach." *Patient Education & Counselling*, vol. 67, no. 3, pp. 319-323.
- Larson, E. B. & Yao, X. (2005). "Clinical Empathy as Emotional Labor in the Patient-Physician Relationship." *JAMA: Journal of the American Medical Association*, vol. 293, no. 9, pp. 1100-1106.
- Lavine, T. Z. (1989). From Socrates to Sartre: the philosophic quest. Bantam Books, New York, USA.
- Lazarus, R. S. (1999). *Stress and emotion: a new synthesis*. Springer Publishing Company Inc., UK.
- Lazarus, R. S. & Folkman, S. (1984). *Stress, Appraisal, and Coping.* Springer Publishing Company, USA.
- Leithner, K.; Assem-Hilger, E.; Fischer-Kern, M.; Loffler-Stastka, H.; Thien, R. & Ponocny-Seliger, E. (2006). "Prenatal care: the patient's perspective. A qualitative study." *Prenatal Diagnosis*, vol. 26, no. 10, pp. 931-937.
- Leonard, V. (1994). "A Heideggarian Phenomenological Perspective on the Concept of Person." In: Benner, P. A. (Ed.), *Interpretive phenomenology: embodiment, caring, and ethics in health and illness*. Sage Publications.
- Leslie, K. R.; Johnson-Frey, S. H. & Grafton, S. T. (2004). "Functional imaging of face and hand imitation: towards a motor theory of empathy." *Neuroimage*, vol. 21, no. 2, pp. 601-607.
- Levetown, M. (2004). "Breaking Bad News in the emergency Department." *Topics in Emergency Medicine*, vol. 26, no. 1, pp. 35-43.
- Lobel, M.; Dias, L. & Meyer, B. A. (2005). "Distress associated with prenatal screening for fetal abnormality." *Journal of Behavioural Medicine*, vol. 28, no. 1, pp. 65-76.
- Loughna, P. (2009). "Soft markers: where are we now?." *Obstetrics, Gynaecology & Reproductive Medicine*, vol. 19, no. 5, pp. 127-129.

- Lykkeslet, E. & Gjengedal, E. (2006). "How can everyday practical knowledge be understood with inspiration from philosophy?." *Nursing Philosophy*, vol. 7, no. 2, pp. 79-89.
- Maddocks, F.; Powell, H.; Day, J. & Ward, P. (2009). Ultrasound Survey of England 2008: Mapping of 1st and 2nd trimester fetal screening services in the NHS. NHS Fetal Anomaly Screening Programme, England.
- Madill, A.; Jordan, A. & Shirley, C. (2000). "Objectivity and reliability in qualitative analysis: Realist, contextualist and radical..." *British Journal of Psychology*, vol. 91, no. 1, pp. 1-20.
- Magee, B. (2000). *The Great Philosophers: An Introduction to Western Philosophy*. Oxford University Press, UK.
- Maijala, H.; Astedt-Kurki, P.; Paavilainen, E. & Vaisanen, L. (2003). "Interaction between caregivers and families expecting a malformed child." *Journal of Advanced Nursing*, vol. 42, no. 1, pp. 37-46.
- Maino, D. M. (2009). "Neuroplasticity Teaching an Old Brain New Tricks." *Review of Optometry*, vol. 146, no. 1, pp. 62-69.
- Mann, S. (2004). "'People-work': emotion management, stress and coping." *British Journal of Guidance & Counselling*, vol. 32, no. 2, pp. 205-221.
- Marteau, T. M.; Dormandy, E. & Michie, S. (2001). "A measure of informed choice." *Health Expectations*, vol. 4, no. 2, pp. 99-108.
- Mason, G. & Baillie, C. (1997). "Counselling should be provided before parents are told of presence of ultrasonographic "soft markers" of fetal abnormality." *British Medical Journal*, vol. 315, no. 7101, pp. 189-190.
- Masroor, I.; Ahmed, H. & Ajmal, F. (2008). "Impact of prenatal ultrasound consultation on maternal anxiety." *Journal of the Dow University of Health Sciences*, vol. 2, no. 1, pp. 16-21.
- Mavroforou, A.; Mavrophoros, D.; Koumantakis, E. & Michalodimitrakis, E. (2003). "Liability in prenatal ultrasound screening." *Ultrasound in Obstetrics & Gynecology*, vol. 21, no. 6, pp. 525-528.
- McCoyd, J. L. M. (2007). "Pregnancy interrupted: loss of a desired pregnancy after diagnosis of fetal anomaly." *Journal of Psychosomatic Obstetrics & Gynecology*, vol. 28, no. 1, pp. 37-48.
- McCreight, B. S. (2005). "Perinatal grief and emotional labour: a study of nurses' experiences in gynae wards." *International Journal of Nursing Studies*, vol. 42, no. 4, pp. 439-448.

- Mcilfatrick, S.; Sullivan, K. & McKenna, H. (2006). "Nursing the clinic vs. nursing the patient: nurses' experience of a day hospital chemotherapy service." *Journal of Clinical Nursing*, vol. 15, no. 9, pp. 1170-1178.
- McIntosh, D. N.; Reichmann-Decker, A.; Winkielman, P. & Wilbarger, J. L. (2006). "When the social mirror breaks: deficits in automatic, but not voluntary, mimicry of emotional facial expressions in autism." *Developmental Science*, vol. 9, no. 3, pp. 295-302.
- McIntosh, N. (1994). "Teaching how to break bad news: A perinatal death symposium." *Medical Teacher*, vol. 16, no. 4, pp. 303-308.
- McLauchlan, C. (1990). "ABC of major trauma. Handling distressed relatives and breaking bad news.." *British Medical Journal*, vol. 301, no. 6761, pp. 1145-1148.
- McLeod, J. (1994). Doing Counselling Research. Sage, London, UK
- McNay, M. & Fleming, J. (1999). "Forty years of obstetric ultrasound 1957-1997: from A-scope to three dimensions." *Ultrasound in Medicine and Biology*, vol. 25, no., pp. 3-56.
- Meltzoff, A. N. & Moore, M. K. (1989). "Imitation in newborn infants: Exploring the range of gestures imitated and the underlying mechanisms." *Developmental Psychology*, vol. 25, no. 6, pp. 954-962.
- Merleau-Ponty, M. (1945/1962). *Phenomenology of Perception*. (Translated by: Smith, C.) Routledge, London, UK.
- Michie, S.; Hendy, J.; Smith, J. & Adshead, F. (2004). "Evidence into practice: a theory based study of achieving national health targets in primary care." *Journal of Evaluation in Clinical Practice*, vol. 10, no. 3, pp. 447-456.
- Mitchell, J. P.; Banaji, M. R. & MacRae, C. N. (2005). "The link between social cognition and self-referential thought in the medial prefrontal cortex." *Journal of Cognitive Neuroscience*, vol. 17, no. 8, pp. 1306-1315.
- Mitchell, L. M. (2004). "Women's experiences of unexpected ultrasound findings." *Journal of Midwifery & Womens Health*, vol. 49, no. 3, pp. 228-234.
- Mohanty, J. (1975). "Edmund Husserl: Philosopher of Infinite Tasks (Review by M. Natanson)." *Journal of the History of Philosophy*, vol. 13, no. 4, pp. 542-545.
- Moran, D. (2000). Introduction to phenomenology. Routledge, UK.
- Morgan, S. (2012). "Breaking Bad News -when it's bad...." *Optometry Today*, vol. 52, no. 2, pp. 46-49.
- Mueller, P. S. (2002). "Breaking bad news to patients. The SPIKES approach can make this difficult task easier." *Postgraduate Medicine*, vol. 112, no. 3, pp. 15-18.
- Mujezinovic, F. & Alfirevic, Z. (2007). "Procedure-related complications of amniocentesis and chorionic villous sampling: a systematic review." *Obstetrics & Gynecology*, vol. 110, no. 3, pp. 687-694.
- Muller, M. A.; Bleker, O. P.; Bonsel, G. J. & Bilardo, C. M. (2006a). "Nuchal translucency screening and anxiety levels in pregnancy and puerperium." *Ultrasound in Obstetrics & Gynecology*, vol. 27, no. 4, pp. 357-361.
- Muller, M.; Bleker, O.; Bonsel, G. & Bilardo, C. (2006b). "Women's opinions on the offer and use of nuchal translucency screening for Down syndrome." *Prenatal Diagnosis*, vol. 26, no. 2, pp. 105-111.
- Myers, T.; Worthington, C.; Aguinaldo, J. P.; Haubrich, D. J.; Ryder, K. & Rawson, B. (2007). "Impact on HIV test providers of giving a positive test result." *AIDS Care*, vol. 19, no. 8, pp. 1013-1019.
- Nagle, C.; Gunn, J.; Bell, R.; Lewis, S.; Meiser, B.; Metcalfe, S.; Ukoumunne, O. C. & Halliday, J. (2008). "Use of a decision aid for prenatal testing of fetal abnormalities to improve women's informed decision making: a cluster randomised controlled trial [ISRCTN22532458]." BJOG: An International Journal of Obstetrics & Gynaecology: An International Journal of Obstetrics & Gynaecology, vol. 115, no. 3, pp. 339-347.
- Nassau, R. (1904/2007). Fetichism in West Africa: forty years' observation of native customs and superstitions. BiblioBazaar, South Carolina, USA.
- Natanson, M. (1974). *Edmund Husserl: Philosopher of Infinite Tasks*. Northwestern University Press, Evanston, illinois, USA.
- NHSFASP (2008). NHS Fetal Anomaly Screening Programme (NHS FASP): Report 2006/2008. Department of Health, UK.
- NHSFASP (2010a). The 18+0-20+6 weeks fetal anomaly screening scan: your online resource user guide, [Online]. Available from: www.fetalanomaly.screening.nhs.uk/fetalanomalyresource [Accessed: 01.04.10]
- NHSFASP (2010b). *Pathway for raised nuchal translucency (NT)* ≥3.5mm, [Online]. Available from: http://fetalanomaly.screening.nhs.uk [Accessed: 20.11.10]
- NHSFASP (2010c). *NHS Fetal Anomaly Screening Programme: Leaflets and booklets*, [Online]. Available from: http://fetalanomaly.screening.nhs.uk/leaflets [Accessed: 17.12.10]
- NHSFASP (2011). Screening for Down's syndrome: UK NSC Policy recommendations 2011–2014 Model of Best Practice. UK National Screening Committee, Exeter, UK.

NICE (2008). Antenatal care: Routine care for the healthy pregnant woman (CG062).

National Institute for Clinical Excellence, UK.

- NICE (2010). Antenatal care: Routine care for the healthy pregnant woman. This guideline partially updates and replaces NICE clinical guideline 6. National Institute for Clinical Excellence, UK.
- Nicol, M. (2007). "Vulnerability of First-Time Expectant Mothers During Ultrasound Scans: An Evaluation of the External Pressures That Influence the Process of Informed Choice." *Health Care Women International*, vol. 28, no. 6, pp. 525-533.
- Noe, A. & Thompson, E. (2004). "Sorting Out the Neural Basis of Consciousness Authors' Reply to Commentators." *Journal of Consciousness Studies*, vol. 11, no. 1, pp. 87-98.
- Norfolk, T.; Birdi, K. & Walsh, D. (2007). "The role of empathy in establishing rapport in the consultation: a new model." *Medical Education*, vol. 41, no. 7, pp. 690-697.
- NSC (2005). Screening Choices: A resource for health professionals offering antenatal and newborn care: Informed choice in antenatal and newborn screening. Department of Health, London, UK.
- NSC (2008). NHS Fetal Anomaly Screening Programme Screening for Down's syndrome: UK NSC Policy recommendations 2007-2010: Model of Best Practice. Department of Health, UK.
- NSC (2010). *Screening tests for you and your baby*. National Screening Committee, Leeds, England.
- Nummenmaa, L.; Hirvonen, J.; Parkkola, R. & Hietanen, J. K. (2008). "Is emotional contagion special? An fMRI study on neural systems for affective and cognitive empathy." *Neuroimage*, vol. 43, no. 3, pp. 571-580.
- O'Connor, T.; Heron, J.; Golding, J.; Beveridge, M. & Glover, V. (2002). "Maternal antenatal anxiety and children's behavioural/emotional problems at 4 years: report from the Avon Longitudinal Study of Parents and Children." *The British Journal of Psychiatry*, vol. 180, no. 6, pp. 502-508.
- O'Connor, T.; Heron, J.; Golding, J. & Glover, V. (2003). "Maternal antenatal anxiety and behavioural/emotional problems in children: a test of a programming hypothesis." *Journal of Child Psychology and Psychiatry*, vol. 44, no. 7, pp. 1025-1036.
- Oakley, A. (1984). *The captured womb: A history of the medical care of pregnant women.* Basil Blackwell, New York, USA.
- Oaks, L. (2003). "Antiabortion positions and young women's life plans in contemporary Ireland." *Social Science & Medicine*, vol. 56, no. 9, pp. 1973-1986.

- Oberman, L. M.; Hubbard, E. M.; McCleery, J. P.; Altschuler, E. L.; Ramachandran, V. S. & Pineda, J. A. (2005). "EEG evidence for mirror neuron dysfunction in autism spectrum disorders." *Cognitive Brain Research*, vol. 24, no. 2, pp. 190-198.
- Overgaard, S. & Zahavi, D. (2009). "Phenomenological Sociology The Subjectivity of Everyday Life." In: Jacobsen, M. H. (Ed.), *Encountering the Everyday: An Introduction to the Sociologies of the Unnoticed*, Palgrave Macmillan, Basingstoke, UK.
- O'Leary, P.; Breheny, N.; Reid, G.; Charles, T. & Emery, J. (2006). "Regional variations in prenatal screening across Australia: stepping towards a national policy framework." *Australian and New Zealand journal of obstetrics and gynaecology*, vol. 46, no. 5, pp. 427-432.
- Packer, C. (2002). Using human rights to change tradition: traditional practices harmful to women's reproductive health in sub-Saharan Africa. Intersentia Publishers, Netherlands.
- Parsons, T. (1951). The Social System. Routledge, New York, USA.
- Paton, F. & Wood, R. (1999). "Grief in miscarriage patients and satisfaction with care in a London hospital." *Journal of Reproductive & Infant Psychology*, vol. 17, no. 3, pp. 301-315.
- Peteet, J. R.; Abrams, H. E.; Ross, D. M. & Stearns, N. M. (1991). "Presenting a diagnosis of cancer: patients' views." *Journal of Family Practice*, vol. 32, no. 6, pp. 577-581.
- Petersen, J. & Jahn, A. (2008). "Suspicious Findings in Antenatal Care and Their Implications from the Mothers' Perspective: A Prospective Study in Germany." *Birth: Issues in Perinatal Care*, vol. 35, no. 1, pp. 41-49.
- Pfeifer, J. H.; Iacoboni, M.; Mazziotta, J. C. & Dapretto, M. (2008). "Mirroring others' emotions relates to empathy and interpersonal competence in children." *Neuroimage*, vol. 39, no. 4, pp. 2076-2085.
- Plutchik, R. (1962). *The emotions: Facts, theories, and a new model*. Random House, New York, USA.
- Press, N. & Browner, C. (1994). "Collective Silences, Collective fictions: How Prenatal Diagnostic Testing Became Part of Routine Prenatal Care." In: Rothenberg, K. & Thomson, E. (Ed.), *Women and Prenatal Testing: Facing the Challenges of Genetic Technology*, Ohio State university Press, USA.
- Press, N. & Browner, C. H. (1997). "Why women say yes to prenatal diagnosis." *Social Science & Medicine*, vol. 45, no. 7, pp. 979-989.

- Preston, S. D. & de Waal, F. B. M. (2003). "Empathy: Its ultimate and proximate bases." *Behavioural Brain Sciences*, vol. 25, no. 01, pp. 1-20.
- Ptacek, J. & Eberhardt, T. (1996). "Breaking bad news. A review of the literature." *JAMA: Journal of the American Medical Association*, vol. 276, no. 6, pp. 496-502.
- Ptacek, J. T.; Leonard, K. & McKee, T. L. (2004). ""I've Got Some Bad News...": Veterinarians' Recollections of Communicating Bad News to Clients." *Journal of Applied Psychology*, vol. 34, no. 2, pp. 366-390.
- Ptacek, J. T.; Ptacek, J. J. & Ellison, N. M. (2001). ""I'm Sorry To Tell You..." Physicians' Reports of Breaking Bad News." *Journal of Behavioural Medicine*, vol. 24, no. 2, pp. 205-217.
- Qureshi, N.; Standen, P.; Hapgood, R. & Hayes, J. (2001). "A randomized controlled trial to assess the psychological impact of a family history screening questionnaire in general practice." *Family Practice*, vol. 18, no. 1, pp. 78-83.
- Rabow, M. W. & McPhee, S. J. (1999). "Beyond breaking bad news: how to help patients who suffer." *Western Journal of Medicine*, vol. 171, no. 4, pp. 260-263.
- Radziewicz, R. & Baile, W. F. (2001). "Communication Skills: Breaking Bad News in the Clinical Setting." Oncology Nursing Forum, vol. 28, no. 6, pp. 951-953.
- Randall, T. C. & Wearn, A. M. (2005). "Receiving bad news: patients with haematological cancer reflect upon their experience." *Palliative Medicine*, vol. 19, no. 8, pp. 594-601.
- RCN (2004). *Informed Consent in Health and Social Care Research*. Royal College of Nursing, London, UK.
- RCOG (2000). Routine Ultrasound Screening in Pregnancy. Protocol, Standards and Training. Supplement to the Working Party Report on Ultrasound Screening for Fetal Abnormalities (October 1997). RCOG, London, UK.
- RCOG (2010). Termination of Pregnancy for Fetal Abnormality in England, Scotland and Wales. Royal College of Obstetricians and Gynaecologists, London, England.
- Reading, A. & Cox, D. (1982). "The effects of ultrasound examination on maternal anxiety levels." *Journal of Behavioral Medicine*, vol. 5, no. 2, pp. 237-247.

Reeves, R. (1961). Reality in Advertising. Knopf, New York, USA.

- Remennick, L. (2006). "The quest for the perfect baby: why do Israeli women seek prenatal genetic testing?." *Sociology of Health and Illness*, vol. 28, no. 1, pp. 21-53.
- Riemen, D. (1986). "Noncaring and caring in the clinical setting: Patients'

descriptions." Topics in Clinical Nursing, vol. 8, no., pp. 30-36.

- Rizzolatti, G. & Craighero, L. (2005). "Mirror neuron: a neurological approach to empathy." *Neurobiology of Human Values*, vol., no., pp. 107-123.
- Rizzolatti, G. & Sinigaglia, C. (2010). "The functional role of the parieto-frontal mirror circuit: interpretations and misinterpretations." *Nature Reviews Neuroscience*, vol. 11, no. 4, pp. 264-274.
- Roberts, N. & Bhide, A. (2007). "Ultrasound prenatal diagnosis of structural abnormalities." *Obstetrics, Gynaecology & Reproductive Medicine*, vol. 17, no. 1, pp. 1-8.
- Rondo, P.; Ferreira, R.; Nogueira, F.; Ribeiro, M.; Lobert, H. & Artes, R. (2003). "Maternal psychological stress and distress as predictors of low birth weight, prematurity and intrauterine growth retardation." *European Journal of Clinical Nutr.*, vol. 57, no. 2, pp. 266-272.
- Rosenzweig, M.; Hravnak, M.; Magdic, K.; Beach, M.; Clifton, M. & Arnold, R. (2008). "Patient communication simulation laboratory for students in an acute care nurse practitioner program." *American Journal of Critical Care*, vol. 17, no. 4, pp. 364-372.
- Rowe, R.; Garcia, J. & Davidson, L. (2004). "Social and ethnic inequalities in the offer and uptake of prenatal screening and diagnosis in the UK: a systematic review." *Public Health*, vol. 118, no. 3, pp. 177-189.
- Rowe, R.; Puddicombe, D.; Hockley, C. & Redshaw, M. (2008). "Offer and uptake of prenatal screening for Down syndrome in women from different social and ethnic backgrounds." *Prenatal diagnosis*, vol. 28, no. 13, pp. 1245-1250.
- Sahin, N. H. & Gungor, I. (2008). "Congenital anomalies: parents' anxiety and women's concerns before prenatal testing and women's opinions towards the risk factors." *Journal of Clinical Nursing*, vol. 17, no. 6, pp. 827-836.
- Salander, P. (2002). "Bad news from the patient's perspective: an analysis of the written narratives of newly diagnosed cancer patients." *Social Science & Medicine*, vol. 55, no. 5, pp. 721-732.
- Salaria, S.; Chana, G.; Caldara, F.; Feltrin, E.; Altieri, M.; Faggioni, F.; Domenici, E.; Merlo-Pich, E. & Everall, I. (2006). "Microarray analysis of cultured human brain aggregates following cortisol exposure: implications for cellular functions relevant to mood disorders." *Neurobiology of disease*, vol. 23, no. 3, pp. 630-636.
- Sartre, J. (1943/1996). *Being and Nothingness*. (Translated by: Barnes, H.) Routledge, Oxon, England.

Saviani-Zeoti, F. & Petean, E. B. L. (2007). "Breaking bad news: doctors' feelings and

behaviors." Spanish Journal of Psychology, vol. 10, no. 2, pp. 380-387.

- Scheff, T. J. (2003). *Looking Glass Selves: The Cooley/Goffman Conjecture*. Memorial Session for Erving Goffman, ASA, Atlanta, USA.
- Schildmann, J.; Cushing, A.; Doyal, L. & Vollmann, J. (2005). "Breaking bad news: experiences, views and difficulties of pre-registration house officers." *Palliative Medicine*, vol. 19, no. 2, pp. 93-98.
- Schoefl, R. (2008). "Breaking Bad News." Digestive Diseases, vol. 26, no., pp. 56-58.
- Schubert, C. & Chambers, P. (2005). "Building the Skill of Delivering Bad News." *Clinical Pediatric Emergency Medicine*, vol. 6, no. 3, pp. 165-172.
- Schulte-Ruther, M.; Markowitsch, H.; Shah, N.; Fink, G. & Piefke, M. (2008). "Gender differences in brain networks supporting empathy." *Neuroimage*, vol. 42, no. 1, pp. 393-403.
- Schulte-Ruther, M.; Markowitsch, H. J.; Fink, G. R. & Piefke, M. (2007). "Mirror neuron and theory of mind mechanisms involved in face-to-face interactions: A functional magnetic resonance imaging approach to empathy." *Journal of Cognitive Neuroscience*, vol. 19, no. 8, pp. 1354-1372.
- Schutz, A. (1932/1967). *The Phenomenology of the Social World*. Northwestern University Press, Illinois, USA.
- Schutz, A. & Luckmann, T. (1973). *The Structures of the Lifeworld*. Northwestern University Press, Illinois, USA.
- SCoR (2008). *Code of Conduct and Ethics*. Society and College of Radiographers (SCoR), London, England.
- Seavilleklein, V. (2009). "Challenging the rhetoric of choice in prenatal screening." *Bioethics*, vol. 23, no. 1, pp. 68-77.
- Sedgmen, B.; McMahon, C.; Cairns, D.; Benzie, R. J. & Woodfield, R. L. (2006). "The impact of two-dimensional versus three-dimensional ultrasound exposure on maternal-fetal attachment and maternal health behavior in pregnancy." *Ultrasound in Obstetrics & Gynecology*, vol. 27, no. 3, pp. 245-251.
- Shamay-Tsoory, S.; Tomer, R.; Berger, B.; Goldsher, D. & Aharon-Peretz, J. (2005). "Impaired "Affective Theory of Mind" Is Associated with Right Ventromedial Prefrontal Damage." *Cognitive and Behavioral Neurology*, vol. 18, no. 1, pp. 55-67.
- Shamay-Tsoory, S. G.; Harari, H.; Aharon-Peretz, J. & Levkovitz, Y. (2010). "The role of the orbitofrontal cortex in affective theory of mind deficits in criminal offenders with psychopathic tendencies." *Cortex*, vol. 46, no. 5, pp. 668-677.

Sher, C.; Romano-Zelekha, O.; Green, M. & Shohat, T. (2003). "Factors affecting performance of prenatal genetic testing by Israeli Jewish women." *American Journal of Medical Genetics Part A*, vol. 120, no. 3, pp. 418-422.

Silverman, D. (1970). The Theory of Organisations. Heinman, London, UK.

- Silverman, D. & Gubrium, J. F. (1994). "Competing strategies for analyzing the contexts of social interaction." *Sociological Inquiry*, vol. 64, no. 2, pp. 179-198.
- Simpson, R. & Bor, R. (2001). "'I'm not picking up a heart-beat': Experiences of sonographers giving bad news to women during ultrasound scans." *British Journal of Medical Psychology*, vol. 74, no. 2, pp. 255-272.
- Singer, T.; Seymour, B.; O'Doherty, J.; Kaube, H.; Dolan, R. J. & Frith, C. D. (2004). "Empathy for pain involves the affective but not sensory components of pain." *Science*, vol. 303, no. 5661, pp. 1157-1162.
- Skari, H.; Malt, U.; Bjornland, K.; Egeland, T.; Haugen, G.; Skreden, M.; Dalholt Bjork, M.; Bjornstad Ostensen, A. & Emblem, R. (2006). "Prenatal diagnosis of congenital malformations and parental psychological distress - a prospective longitudinal cohort study." *Prenatal Diagnosis*, vol. 26, no. 11, pp. 1001-1009.
- Skupski, D.; Newman, S.; Edersheim, T.; Hutson, J. M.; Udom-Rice, I.; Chervenak, F. & McCullough, L. (1996). "The impact of routine obstetric ultrasonographic screening in a low-risk population, ,." *American Journal of Obstetrics and Gynecology*, vol. 175, no. 5, pp. 1142-1145.
- Smith, J. (2004). "Reflecting on the development of interpretative phenomenological analysis and its contribution to qualitative research in psychology." *Qualitative Research in Psychology*, vol. 1, no. 1, pp. 39-54.
- Smith, J. A.; Flowers, P. & Larkin, M. (2009). Interpretative phenomenological analysis: theory, method and research. Sage Publications Ltd, UK.
- Smith, R. P.; Titmarsh, S. & Overton, T. G. (2004). "Improving patients' knowledge of the fetal anomaly scan." Ultrasound in Obstetrics & Gynecology, vol. 24, no. 7, pp. 740-744.
- Sonnby-Borgstrom, M.; Jonsson, P. & Svensson, O. (2008). "Gender differences in facial imitation and verbally reported emotional contagion from spontaneous to emotionally regulated processing levels." *Scandinavian Journal of Psychology*, vol. 49, no. 2, pp. 111-122.
- Spafford, M. M.; Schryer, C. F. & Creutz, S. (2008). "Delivering Bad News: Applying the SPIKES Protocol to the Practice of Optometry." *Optometric Education*, vol. 34, no. 1, pp. 13-21.

Spichiger, E.; Wallhagen, M. I. & Benner, P. (2005). "Nursing as a caring practice

from a phenomenological perspective." *Scandinavian Journal of Caring Sciences*, vol. 19, no. 4, pp. 303-309.

- Spiegelberg, H. & Schuhmann, K. (1981). *The phenomenological movement: a historical introduction*. Kluwer Academic Publishers, Norwell, USA.
- Statham, H. & Green, J. (1993). "Serum screening for Down's syndrome: some women's experiences.." *British Medical Journal*, vol. 307, no. 6897, pp. 174-176.
- Statham, H.; Solomou, W. & Green, J. M. (2001). *Detection of fetal abnormality at different gestations: impact on parents and service implications*. Centre for Family Research, England.
- Strack, F.; Martin, L. L. & Stepper, S. (1988). "Inhibiting and facilitating conditions of the human smile: A nonobtrusive test of the facial feedback hypothesis." *Journal* of Personality and Social Psychology, vol. 54, no. 5, pp. 768-777.
- Strauss, R. P.; Sharp, M. C.; Lorch, S. C. & Kachalia, B. (1995). "Physicians and the communication of "bad news": parent experiences of being informed of their child's cleft lip and/or palate." *Pediatrics*, vol. 96, no. 1, pp. 82-89.
- Surkan, P. J.; Radestad, I.; Cnattingius, S.; Steineck, G. & Dickman, P. W. (2008). "Events after Stillbirth in Relation to Maternal Depressive Symptoms: A Brief Report." *Birth: Issues in Perinatal Care*, vol. 35, no. 2, pp. 153-157.
- Swanson-Kauffman, K. M. (1986). "Caring in the instance of unexpected early pregnancy loss." *Topics in Clinical Nursing*, vol. 8, no. 2, pp. 37-46.
- Sweeny, K. & Shepperd, J. A. (2007). "Being the best bearer of bad tidings." *Review* of General Psychology, vol. 11, no. 3, pp. 235-257.
- Tautz, S. & Jahn, A. (2000). "Between fear and relief: How rural pregnant women experience foetal ultrasound in a Botswana..." *Social Science & Medicine*, vol. 50, no. 5, pp. 689-701.
- Teixeira, J. M. A.; Fisk, N. M. & Glover, V. (1999). "Association between maternal anxiety in pregnancy and increased uterine artery resistance index: cohort based study." *British Medical Journal*, vol. 318, no. 7177, pp. 153-157.
- Tesser, A. & Rosen, S. (1972). "Similarity of objective fate as a determinant of the reluctance to transmit unpleasant information: The MUM effect." *Journal of Personality and Social Psychology*, vol. 23, no. 1, pp. 46-53.
- Theophilos, T.; Magyar, J. & Babl, F. (2009). "Debriefing critical incidents in the paediatric emergency department: current practice and perceived needs in Australia and New Zealand." *Emergency Medicine Australasia*, vol. 21, no. 6, pp. 479-483.

Thomas, J. (1993). Doing critical ethnography. Sage Publications Inc, London. UK.

- Tillett, R.; Fisk, N.; Murphy, K. & Hunt, D. (2000). "Clinical outcome of congenital talipes equinovarus diagnosed antenatally by ultrasound." *Journal of Bone and Joint Surgery-British Volume*, vol. 82, no. 6, pp. 876-880.
- Tuckey, M. (2007). "Issues in the debriefing debate for the emergency services: Moving research outcomes forward." *Clinical Psychology: Science and Practice*, vol. 14, no. 2, pp. 106-116.
- Uysal, A. & Oner-Ozkan, B. (2007). "A Self-Presentational Approach to Transmission of Good and Bad News." *Social Behavior & Personality: An International Journal*, vol. 35, no. 1, pp. 63-78.
- Vail, L.; Sandhu, H.; Fisher, J.; Cooke, H.; Dale, J. & Barnett, M. (2010). "Hospital consultants breaking bad news with simulated patients: An analysis of communication using the Roter Interaction Analysis System." *Patient Education* & *Counselling*, vol. 83, no. 2, pp. 185-194.
- Van Den Berg, M.; Timmermans, D.; Kleinveld, J.; Garcia, E.; van Vugt, J. & van der Wal, G. (2005). "Accepting or declining the offer of prenatal screening for congenital defects: test uptake and women's reasons." *Prenatal Diagnosis*, vol. 25, no. 1, pp. 84-90.
- Van den Berg, M.; Timmermans, D. R. M.; Kleinveld, J. H.; Van Eijk, J. T. M.; Knol, D. L.; Van der Wal, G. & Van Vugt, J. M. G. (2007). "Are counsellors' attitudes influencing pregnant women's attitudes and decisions on prenatal screening?." *Prenatal Diagnosis*, vol. 27, no. 6, pp. 518-524.
- Van den Berg, M.; Timmermans, D. R. M.; Knol, D. L.; Van Eijk, J. T. M.; de Smit, D. J.; Van Vugt, J. M. G. & Van der Wal, G. (2008). "Understanding pregnant women's decision making concerning prenatal screening." *Health Psychology*, vol. 27, no. 4, pp. 430-437.
- Van den Bergh, B.; Mulder, E.; Mennes, M. & Glover, V. (2005). "Antenatal maternal anxiety and stress and the neurobehavioural development of the fetus and child: links and possible mechanisms. A review." *Neuroscience & Biobehavioral Reviews*, vol. 29, no. 2, pp. 237-258.
- Van der Zalm, J. & Byrne, P. (2006). "Seeing baby: women's experience of prenatal ultrasound examination and unexpected fetal diagnosis." *Journal of Perinatology*, vol. 26, no. 7, pp. 403-408.
- Van Dyk, B.; Motto, J. & Buchmann, E. (2008). "The value of routine mid-trimester ultrasound in low-risk pregnancies at primary care level." *Health SA Gesondheid journal of Interdisciplinary Health Sciences*, vol. 13, no. 4, pp. 41-49.

Wakefield, A.; Cooke, S. & Boggis, C. (2003). "Learning together: use of simulated

patients with nursing and medical students for breaking bad news." *International Journal of Palliative Nursing*, vol. 9, no. 1, pp. 32-38.

- Waldenstrom, U. (2004). "Why do some women change their opinion about childbirth over time?." *Birth*, vol. 31, no. 2, pp. 102-107.
- Walker, L. V.; Miller, V. J. & Dalton, V. K. (2008). "The health-care experiences of families given the prenatal diagnosis of trisomy 18." *Journal of Perinatology*, vol. 28, no. 1, pp. 12-19.
- Whiten, A.; Horner, V. & De Waal, F. B. M. (2005). "Conformity to cultural norms of tool use in chimpanzees." *Nature*, vol. 437, no. 7059, pp. 737-740.
- Whittle, M. (1997). "Ultrasonographic "soft markers" of fetal chromosomal defects." *British Medical Journal*, vol. 314, no. 7085, pp. 918-918.
- Whynes, D. (2002). "Receipt of information and women's attitudes towards ultrasound scanning during pregnancy." *Ultrasound in Obstetrics & Gynecology*, vol. 19, no. 1, pp. 7-12.
- Wicker, B.; Keysers, C.; Plailly, J.; Royet, J. P.; Gallese, V. & Rizzolatti, G. (2003). "Both of Us Disgusted in My Insula: The Common Neural Basis of Seeing and Feeling Disgust." *Neuron*, vol. 40, no. 3, pp. 655-664.
- Williams, C. (2006). "Dilemmas in fetal medicine: premature application of technology or responding to women's choice?." *Sociology of Health and Illness*, vol. 28, no. 1, pp. 1-20.
- Williams, C.; Sandall, J.; Lewando-Hundt, G.; Heyman, B.; Spencer, K. & Grellier, R. (2005). "Women as moral pioneers? Experiences of first trimester antenatal screening." *Social Science & Medicine*, vol. 61, no. 9, pp. 1983-1992.
- Willig, C. (2001). Introducing qualitative research in psychology: adventures in theory and method. Open University Press, England.
- Witcombe, J. & Radford, A. (1986). "Obstetric ultrasonography: wider role for radiographers?." *British Medical Journal*, vol. 292, no. 6513, pp. 113-115.
- Wittenberg-Lyles, E. M.; Goldsmith, J.; Sanchez-Reilly, S. & Ragan, S. L. (2008). "Communicating a terminal prognosis in a palliative care setting: Deficiencies in current communication training protocols." *Social Science & Medicine*, vol. 66, no. 11, pp. 2356-2365.
- Wyldes, M. P. & Tonks, A. M. (2007). "Termination of pregnancy for fetal anomaly: a population-based study 1995 to 2004." BJOG: An International Journal of Obstetrics & Gynaecology: An International Journal of Obstetrics & Gynaecology, vol. 114, no. 5, pp. 639-642.

- Yeo, L. & Vintzileos, A. M. (2008). "The role of ultrasound in prenatal detection of chromosomal abnormalities." *Expert Review of Obstetrics and Gynecology*, vol. 3, no. 1, pp. 103-117.
- Zlotogorski, Z.; Tadmor, O.; Duniec, E.; Rabinowitz, R. & Diaman, Y. (1995). "Anxiety levels of pregnant women during ultrasound examination: coping styles, amount of feedback and learned resourcefulness." *Ultrasound in Obstetrics & Gynecology*, vol. 6, no. 6, pp. 425-429.

Appendices

Appendix 1: Introductory letter (prospective participant)

	University of Cumbria
	Nick Cantlay School of Medical Imaging Sciences University of Cumbria Bowerham Road Lancaster LA1 3JD
	snjcant@cumbria.ac.uk Office: 01524 384384 x2505 Mob:07935 234340
To: Sonographers employed b	by the NHS
Dear Sonographer,	
My name is Nick Cantlay and of Cumbria in Lancaster. I v	I am radiographer doing a full time PhD at the University
looking at sonographers' ex ultrasound scan. This is a hig available to guide practitio sonographer, may help prov process from the perspective the advice to date has been p account the immediate and u prenatal scan. This research body of knowledge which we practice.	vould like to invite you to participate in my research, speriences of breaking bad news during a prenatain hly under-researched area in which there is little advice ners like yourself. Your input, as an experienced ide a better understanding of the breaking bad news of those who perform this task on a daily basis. Most of rovided by the medical profession and does not take into nexpected nature of bad news when it occurs during a is an opportunity for sonographers to contribute to a bould stem from their own professional experience and
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looking at sonographers' ex ultrasound scan. This is a hig available to guide practitio sonographer, may help prov process from the perspective the advice to date has been p account the immediate and u prenatal scan. This research body of knowledge which we practice. I have enclosed an informative research would entail should y If after reading this informative using the contact details provi-	vould like to invite you to participate in my research, speriences of breaking bad news during a prenata hly under-researched area in which there is little advice ners like yourself. Your input, as an experienced ide a better understanding of the breaking bad news of those who perform this task on a daily basis. Most of rovided by the medical profession and does not take into nexpected nature of bad news when it occurs during a is an opportunity for sonographers to contribute to a build stem from their own professional experience and on sheet which explains what your involvement in the you choose to accept my invitation to participate.
looking at sonographers' ex ultrasound scan. This is a hig available to guide practitio sonographer, may help prov process from the perspective the advice to date has been p account the immediate and u prenatal scan. This research body of knowledge which we practice. I have enclosed an informative research would entail should y If after reading this informative using the contact details provide Yours faithfully,	vould like to invite you to participate in my research (periences of breaking bad news during a prenata hly under-researched area in which there is little advice ners like yourself. Your input, as an experienced ide a better understanding of the breaking bad news of those who perform this task on a daily basis. Most o rovided by the medical profession and does not take into nexpected nature of bad news when it occurs during a is an opportunity for sonographers to contribute to a build stem from their own professional experience and on sheet which explains what your involvement in the you choose to accept my invitation to participate. on you are interested in taking part please contact me ded

Appendix 2: Participant information sheet (PIS)







Appendix 3: Reminder letter (prospective participant)

University of Cumbria
Nick Cantlay School of Medical Imaging Sciences University of Cumbria Bowerham Road Lancaster LA1 3JD
snjcant@cumbria.ac.uk Mob:07935 234340
Date
Sonographer Address
Dear Sonographer,
My name is Nick Cantlay and I am radiographer doing a full time PhD at the University of Cumbria in Lancaster. I wrote to you a few weeks ago asking if you would consider taking part in my research which is looking at sonographers' experiences of breaking bad news during a prenatal ultrasound scan. As I have not heard from you yet I thought I would send you a quick reminder and invite you once again to participate in the project. Please find a copy of the information sheet about the research enclosed with this letter.
I have sent this reminder letter in case my previous letter was lost in the post. If you received this correspondence and decided not to participate I apologise for contacting you again. If I do not hear from you over the next couple of weeks I shall assume you have declined my invitation and not send you any more correspondence.
Yours faithfully,
Nick Cantlay

Appendix 4: Introductory letter (lead sonographer)

University of Cumbria
Nick Cantlay School of Medical Imaging Sciences University of Cumbria Bowerham Road Lancaster LA1 3JD
snjcant@cumbria.ac.uk Office: 01524 384384 Mob:07935 234340
Date
Lead Sonographer Ultrasound Department
Dear lead sonographer,
My name is Nick Cantlay and I am currently recruiting participants for a research project exploring sonographers' experiences of breaking bad news during a prenatal ultrasound scan. I would be grateful if you or any members of your team would consider taking part in the study. There are some information sheets enclosed with this letter and I am hoping to conduct interviews over the next three months. If you have any questions about the research please do not hesitate to contact me.
Yours faithfully,
Nick Cantlay

Appendix 5: Reminder letter (lead sonographer)

University of Cumbria
Nick Cantlay School of Medical Imaging Sciences University of Cumbria Bowerham Road Lancaster LA1 3JD
snjcant@cumbria.ac.uk Mob:07935 234340
Date
PP Name Address
Dear Lead Sonographer,
My name is Nick Cantlay and I am radiographer doing a full time PhD at the University of Cumbria in Lancaster. I wrote to you a few weeks ago asking you or any members of your team to consider taking part in my research which is looking at sonographers' experiences of breaking bad news during a prenatal ultrasound scan. As I have not heard from you yet I thought I would send you a quick reminder and invite you once again to participate in the project. Please find a copy of the information sheet about the research enclosed with this letter.
I have sent this reminder letter in case my previous letter was lost in the post. If you received this correspondence and decided not to participate I apologise for contacting you again. If I do not hear from you over the next couple of weeks I shall assume you have declined my invitation and not send you any more correspondence.
Yours faithfully,
Nick Cantlay

Appendix 6: Participant consent form

Univer	sity of Cumbria
Research into Sonograp News in	phers' Experiences of Breaking Ba Prenatal Ultrasound
Partic	ipant Consent Form
Please answer the following question	ons by circling your responses:
I have read and understood the partic study. YES NO	ipant information sheet dated relating to this
I have been able to ask questions abc answered. YES NO	out this study and have had my questions suitably
I understand that I am free to withdraw reason for my withdrawal. YES NO	w from this study at any time and do not have to give a
I agree to have my interview with the r	researcher audio recorded. YES NO
I give permission for members of the r interview. YES NO	research team to have access to my anonymised
I agree that my direct quotes from my YES NO	interview may be used in subsequent publications.
I am happy to be contacted by the res interview transcript and a precis of the and am not obliged to comment on eit	searcher after the interview and be offered a copy of the initial results. I understand that I can decline this offer the transcript or the results. YES NO
I agree to take part in this study. YES	; NO
Your signature will certify that you hav having read and understood the inform that you have had adequate opportun questions have been answered to you	re voluntarily decided to take part in this research stud mation in the sheet for participants. It will also certify ity to discuss the study with an investigator and that a ur satisfaction.
Signature of participant:	Date:
Name (block letters):	
Signature of researcher:	Date:
Please keep your copy of the consent	form and the information sheet together.
Researcher contact details can be fou	ind overleaf.
	1

Researcher Contact Information:

Nick Cantlay School of Medical Imaging Sciences University of Cumbria Bowerham Road Lancaster, LA1 3JD

Tel: 01524 384384 (ext 2505) Mobile: 07935 234340 Email: snjcant@cumbria.ac.uk

2

Appendix 7: University of Cumbria ethical approval

From the University of Cumbria Head of Research and Scholarship 29 October 2008 CON/SHB Dear Nick Request for Ethical Clearance - Ref No 08/06 Project: Breaking Bad News in Prenatal Ultrasound Thank you for the response to the issues that the committee raised. The committee is now able to provide approval. However a clear statement must be included that explains what happens to the participants' data should they wish to withdraw from the project. **Best Wishes** Cliff O'Neill Dr C O'Neill Head of Research and Scholarship Chair of Ethics Sub-Committee

Appendix 8: NHS ethical approval

	NHS
	National Research Ethics Service
	Cumbria & Lancashire B Research Ethics Committee Room 181 Gateway House Piccadilly South Manchester M60 7LP
05 May 2009	Telephone: 0161 237 2438 Facsimile: 0161 237 2383
Mr Nicholas Cantlay PhD Candidate University of Cumbria School of Medical Imaging S University of Cumbria Lancaster LA1 3JD	Sciences
Dear Mr Cantlay	`~
Full title of study:	Sonographers' Experiences of Breaking Bad News in
REC reference number:	Prenatal Ultrasound 09/H1016/60
The Research Ethics Comm April 2009. Thank you for att	ittee reviewed the above application at the meeting held on 24 ending to discuss the study.
The following points were rai	ised at the meeting:
 The Committee aske participants. Dr Booth expl approximately that the large 15 participant 	d you what they would do if they did not recruit enough ained that the University of Cumbria has been training / 30 sonographers per year for the last 20 years and so hoped cohort of potential participants would mean that recruiting 10- s would be possible.
The Committee askee	d you about what training on breaking bad news is available for
sonographers. o Dr Booth told change from s	the Committee that it was only in the 1990's that there was the sonographers performing the scan and the obstetrician back parts are than the sonographers to approximate the sector was t
breaking any l she trains stud sonographers training on bre	dent sonographers doing both. Dr Booth confirmed that dent sonographers now on breaking bad news but those that trained 10 years ago or more may not have received any paking bad news.
breaking any l she trains stud sonographers training on bre The Committee told y the use of direct quot	dent sonographers doing both. Dr Booth confirmed that dent sonographers now on breaking bad news but those that trained 10 years ago or more may not have received any eaking bad news. You that they thought that the point on the consent form about es should read 'I <u>agree</u> ' rather than 'I <u>understand</u> '.
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 breaking any l she trains stur sonographers training on bre The Committee told y the use of direct quot The Committee told y in the second sentence participants realise th the study will be to ad This Research Ethics Commit 	add news to solubgraphers doing both. Dr Booth confirmed that dent sonographers now on breaking bad news but those that trained 10 years ago or more may not have received any eaking bad news. To that they thought that the point on the consent form about es should read 'I <u>agree</u> ' rather than 'I <u>understand</u> '. ou that they thought the word sonographer should be included be of the PIS (under the heading 'about the study') so that the e study is aimed specifically at sonographers i.e. 'The goal of Idress the lack of information and literature available to ttee is an advisory committee to North West Strategic Health Authority



09/H1016/60	Please quote this number on all corresponden
With the Committee	s's best wishes for the success of this project
Yours sincerely	
pp. SMU	Parter.
Dr Patricia Wilkins Chair	son
Email: sian.parker@	Dorthwest.nhs.uk
Enclosures:	List of names and professions of members who were present at the meeting.
	"After ethical review – guidance for researchers"
Copy to:	Dr Lisa Booth, School of Medical Imaging Sciences, University of Cumbria, Lancaster. LA1 3JD
	Mrs Sonia Barnes, University of Cumbria Research Office, Lancaste LA1 3JD

	National	Research	Ethics Sor
	Cumbria & Lanca	ashire B Researc	h Ethics Commit
			Gateway Ho
			Piccadilly Se Manche
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			Telephone: 0161 237 2
10 May 2009			Facsimile: 0161 237 2
19 May 2009			
Mr Nicholas Cantlay			
School of Medical Imaging	Sciences		
University of Cumbria	goolenoes		
Lancaster			
LA1 3JD			
Dear Mr Cantlay		*	
			Ded Neura in
Full title of study:	Sonographers' Experier Prenatal Ultrasound	nces of Breaking	Bad News In
REC reference number:	09/H1016/60		
Protocol number:	1		
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Appendix 9: Original semi-structured interview schedule

This schedule was devised from themes extracted during a review of "breaking bad news" literature undertaken by the researcher. The questions relating to each theme may guide the discussion between the researcher and the participant during the interview about the participant's experiences of breaking bad news. The questions will not be asked in any particular order and many may not be asked at all. This schedule is only a guide and provides a list of backup questions to support a semi-structured style of interviewing. Semi-structured interviews are recommended by the Interpretative Phenomenological Analysis (IPA) methodology which underpins this study.

Themes and Possible Questions

Defining Bad News

- What would consider to be bad news during a routine scan?
 - Common medical model definition (plus cognitive elements)
 - Patients' perceptions (gender, twins, death)

Expertise

Do you think some people are better at breaking bad news than others?

- Why?
- How would you rate yourself?
- o Training
- o Experience
- How can you tell when breaking bad news has gone well / badly?
 - Patient reaction
 - o Own stress level

Feelings

Do you remember the last time that you broke bad news?

- How did you feel when you discovered something was wrong?
 - Blame
 - Shooting the messenger
 - Losing control
 - Showing emotions
 - Negative evaluation

Behaviour

- Do you think the patient could sense that something was wrong before you told them anything?
 - Your body language
 - Your facial expression

• What did you do when you saw something was wrong?

- Keep quiet
- Concentrate on the monitor

- Say something to the patient
- o Plan what to say
- Follow a protocol / routine
- Do you remember how you broke the bad news?
 - Particular words used / avoided
 - \circ Position
 - o Touch
 - Show monitor
 - Draw diagrams
 - Control of own emotions
 - Convey empathy

After Breaking Bad News

- How did you deal with the patient's reaction?
 - Certain behaviour / language
 - o Just being present
 - Difficulties
 - Time

How do you cope yourself?

- o Social support
- Emotional distancing
- o Other