

**The Journey of Becoming a Mother-Infant Pair: A close examination of maternal
phantasies, foetal 'experience' and early infant development**

Oyku Turker

A thesis submitted for the degree of Doctor of Philosophy

Department of Psychosocial and Psychoanalytic Studies

University of Essex

Date of submission for examination

February 2026

ABSTRACT

The aim of this thesis is to understand the relationship between maternal phantasies and perceptions during pregnancy with the early development of infants and how infants' 'experiences' and 'memories' of their prenatal life might colour their relationship with their mother and early interactions with the external world. Psychoanalysis has always been interested in the possible continuity between intrauterine life and the postnatal world (Freud, 1926) but this interest has largely stayed speculative except for some ambitious case studies combining ultrasound imaging and infant observations (Caron & Lopes, 2017; Piontelli 1992). The relationship between the pre- and post-natal environment has limited empirical study about it and there is a lack of research around the relationship between maternal phantasies, foetal experience, and their influence on early infant development.

In this thesis I ask, can maternal experiences and phantasies during pregnancy affect foetal experience and can we see echoes of this effect in the post-natal world? It has been shown in countless empirical studies (Music, 2017) that the expectant mothers' behaviours affect the later physical health of her foetus but what about the psyche of the mother and its later effects? Can the expectant mother's thoughts, conflicts and desires influence the emotional development of her foetus?

To address this gap in our understanding of the experience of the foetus and its effects on infant development, this thesis has done a comprehensive literature review on pregnancy and prenatal life and conducted two-fold empirical research. Interviews with five pregnant women in their second trimester of pregnancy was followed by 10-week infant observations with their infants when they turned 6-months-old. Findings and common themes of the interviews and infant observations are explored, with a discussion of what we can infer about foetal experience and the influence of maternal phantasies on it.

ACKNOWLEDGEMENTS

First and foremost, I would like to thank all the mothers and infants who shared with me a year of their lives and let me observe and explore their experiences with me.

I would like to thank my supervisors Professor Sue Kegerreis and Arianna Pulsoni who have both been with me from the conception of this project. They have shown me continuous support, patience, and encouragement but also have challenged me to think outside the box. Without them and their riveting comments, this project would not be possible. Thank you for presenting me all the opportunities that you have in these past 5 years.

I would like to also thank Rodrigo Sanchez Escandon and Dr Ann Adison for being on my supervisory panels and expanding my horizons with their knowledge and experience. Thank you to everyone at PPS who was with me for these past 5 years. I am especially grateful for the support of Dr Jessica Battersby and Dr Zibiah Loakthar who helped me navigate through various challenges of completing my PhD.

Thank you to Dr Madeleine Wood and Professor Heather Montgomery who were my examiners and provided me with a rich and intellectually stimulating viva experience.

Thank you to my parents, my dog Simba, and close friends who with their continued support have kept me going, always putting a smile on my face.

Lastly, I would like to thank my partner and my best friend Francisco Antonio Alamo Rios. Without his kindness, patience, humour and support I would not be able to undertake this momentous task and the emotional rollercoaster of finishing my thesis.

TABLE OF CONTENTS

ABSTRACT.....	II
ACKNOWLEDGEMENTS.....	III
CHAPTER 1: INTRODUCTION	1
1.1 MOTIVATION	1
1.2 ADAPTING TO THE WORLD THAT AWAITS: THINKING ABOUT FOETAL EXPERIENCE	4
1.3 RESEARCH PROBLEM AND RESEARCH QUESTIONS.....	9
1.4 OUTLINE OF THESIS.....	12
1.5 SITUATING THE LITERATURE REVIEW AND RESEARCH	13
CHAPTER 2: PSYCHOLOGICAL ASPECTS OF PREGNANCY	17
2.1 THE PROCESSES OF PREGNANCY	17
2.2 PSYCHIC INTERCHANGE AND CHANGING IDENTITIES: MATERNAL SUBJECTIVITY AND MATRESCENCE	19
2.2.1. <i>Dynamics of and difficulties in changing identities</i>	22
2.3 PLACENTAL PARADIGM	25
2.4. LOSS AND TRANSFORMATIONS	28
2.5 SELF-CONCERN TO CONCERN FOR BABY: FEAR AND FANTASY	31
2.6. BECOMING PREGNANT VS BECOMING A MOTHER	32
2.7. THE RELATIONSHIP CONTEXT OF PREGNANCY.....	33
2.7.1 <i>Transition into Parenthood</i>	35
2.7.2. <i>Intergenerational aspects and institutional roles</i>	36
2.7.3. <i>Empirical research on the couple in transition</i>	37
CHAPTER 3: EXPERIENCE OF THE FOETUS	40
3.1 MATERNAL INFLUENCE ON THE DEVELOPING FOETUS	40
3.2 NATURE AND NURTURE IN PRENATAL LIFE	43
3.2.1. <i>Journey in the womb</i>	45
3.3 THE “SOUNDS-OBJECT” AND THE FIRST ESTABLISHMENT OF ME/NOT-ME.....	46
3.4 BODILY MEMORIES AND INBORN PRECONCEPTIONS	47
CHAPTER 4: INTRAUTERINE ADVERSE EXPERIENCES.....	50
4.1 PROTO-EXPERIENCES AND BODILY MEMORIES.....	50
4.2 DEFINING INTRAUTERINE ADVERSE EXPERIENCES	53
4.2.1. <i>The irresolvable tension between the pre- and post-natal situations</i>	55
4.3 DEFENCES IN THE WOMB.....	56
4.3.1. <i>Pionelli’s clinic</i>	57
4.4. GHOSTS IN THE WOMB	59
CHAPTER 5: THE BIRTH EXPERIENCE AND FIRST MONTHS OF LIFE.....	63
5.1 THE PHYSICAL BIRTH	63
5.1.1. <i>Fears and Fantasies Surrounding Childbirth</i>	63
5.1.2. <i>The physical realities of birth and meanings given to it</i>	64
5.2 THE PSYCHOLOGICAL BIRTH	67
CHAPTER 6: METHODOLOGY	72
6.1 PARTICIPANTS	72
6.2 INSTRUMENTS AND PROCEDURE	73
6.2.1. <i>Semi structured interviews as an instrument</i>	73
6.2.2. <i>Reasoning behind choosing semi-structured interviews as an instrument</i>	75
6.2.3. <i>Infant observations as an instrument</i>	76
6.2.4. <i>Reasoning behind choosing Infant Observation as an instrument</i>	78
6.2.5. <i>Reflexivity</i>	79
6.2.6. <i>Infant observation as a research method</i>	81

6.3 DATA ANALYSIS	89
6.4 EPISTEMOLOGICAL CONCERNS	94
6.5 ETHICAL CONSIDERATIONS	96
CHAPTER 7: FINDINGS FROM INTERVIEWS	98
CHAPTER 8: FINDINGS FROM INFANT OBSERVATIONS	142
CHAPTER 9: DISCUSSION	223
9.1 THE RELATIONSHIP BETWEEN PRE- AND POST-NATAL LIFE	224
9.1.1. <i>Protective phantasies and reparation</i>	225
9.1.2. <i>Maintaining a relationship with mother and movement</i>	236
9.1.3. <i>The Birth Experience</i>	238
9.1.4. <i>Use of Countertransference</i>	240
9.1.5. <i>The irresolvable tension between pre- and post-natal environment</i>	243
9.2 THE USE OF TECHNOLOGY	245
9.3 ROLE OF THE OBSERVER	248
9.4 IMPLICATIONS OF FINDINGS	251
9.4.1. <i>Experience of pregnant women/mothers</i>	251
9.4.2. <i>Experience of the foetus/infant</i>	253
9.4.3. <i>Wider implications of findings</i>	256
CHAPTER 10: CONCLUSION	262
10.1 SUMMARY OF THESIS FINDINGS AND CONTRIBUTIONS	262
10.2 LIMITATIONS AND RECOMMENDATIONS FOR FUTURE WORK	265
REFERENCES	270
APPENDICES	293
APPENDIX A: CALL FOR PARTICIPANTS ADVERT	293
APPENDIX B: PARTICIPANT INFORMATION SHEET	294
APPENDIX C: CONSENT FORM	297
APPENDIX D: APPROVAL LETTER FROM ETHICS BOARD	299

Chapter 1: Introduction

1.1 Motivation

My interest in the possibility of foetal experience first started when I was working as a clinical psychologist in Turkey. I had a patient who came to me for psychotherapy with presenting problems of social anxiety and general relationship problems. This young woman, beyond her presenting problems, had a curious presence in the room, reporting frequent feelings of claustrophobia and exclaiming that she could not breathe when we touched upon delicate issues. After a couple of months of work, it was fascinating to learn that her mother had gotten pregnant with her during a psychotic episode of schizophrenia, and that she was the fruit of an affair and an unwanted pregnancy. Her mother tried to hide this pregnancy by wearing a corset for the 9 months. Over the next months and years of psychotherapy, we often came back to this link between her complaints of claustrophobia and relational issues together with her fantasies about her foetal experience.

Around the same time, I had a serendipitous encounter with Nina Farhi's (2010) posthumous text, *The Hands of the Living God: "Finding the Familiar in the Unfamiliar"* during a reading group. Reading this text and the discussion around it in *Psychoanalytic Dialogues* (2010) sparked my curiosity and opened me up to an under researched area in psychoanalysis. After reading Milner's (1969) book, *The Hands of the Living God: an account of a psycho-analytic treatment*, I was certain that I wanted to research further the relationship between maternal experiences and perceptions during pregnancy and the possibility of foetal 'experience' and 'memory'¹.

¹ Throughout this thesis I use terms like experience, memory, and remembering although they do not quite fit or work for describing the intrauterine world or the foetus. In my inability to find or come up with terms that are more suited and not wanting to use the prefix proto before each use of these concepts, I urge my

In *The Hands of the Living God: an account of a psycho-analytic treatment* Marion Milner (1969) describes a 17 yearlong psychoanalysis with Susan, a woman who started treatment with Milner following a psychotic breakdown. The book is a rich depiction of this analysis and includes the hundreds of doodles Susan produced throughout the analysis, the doodles eventually becoming the common language between Milner and Susan. While trying to understand Susan's emotional and relational difficulties, Milner hypothesizes that some very early, pre-verbal experiences—possibly even foetal experiences—may leave traces in the psyche. She doesn't claim this as a proven fact but explores it as a way of understanding her patient's deep feelings of confusion, lack of boundaries, and difficulty distinguishing herself from the external world. Drawing on theories of Winnicott—who supervised Milner on this case as well as Klein—Milner tentatively concludes that such early experiences could shape a person's earliest sense of being, raising the possibility that very primitive emotional states might originate before birth.

Nina Farhi was a psychoanalytic psychotherapist who worked with and wrote about difficult clinical presentations such as psychosis (Farhi, 2003, 2008, 2010). She also was a close friend and student of Marion Milner. In her 2010 paper *The Hands of the Living God: "Finding the Familiar in the Unfamiliar"*, Farhi re-visits Milner's 1969 book to extend it theoretically and to argue for the validity of its conclusions relating to foetal experience. She supplements the re-reading of this case study, with psychoanalytic theories around very primitive emotional states (Bick, 1968; Gaddini, 1992), as well as research from evolutionary psychology (Badcock, 2020) and genetics (Haig, 1993). To describe the *mechanism* which may produce emotional difficulties like Susan's (Milner, 1969), Farhi proposes her own concept of "annealed identification" (Farhi, 2003) as an explanation:

reader to keep in mind that when talking about the intrauterine world or the foetus, these concepts do refer to a more primitive and pre-verbal realm of functioning than the traditional definition of these words.

An infinitely subtle transfer of separating and combining takes place—possibly in intra-uterine life at the genetic-conflict level proposed by Haig—in order to secure survival of the fetus [sic] as it struggles for its own survival while faced with profound maternal ambivalence or even murderousness. In this process, it may be that the survival of the fetus [sic] indeed claims psycho-physiological nutrients from the mother’s psycho-physiological being by which to harden itself into the adult entity. For such dire purposes, the mother–infant dyad, too, may anneal themselves together to ensure the survival of both. Here, I am suggesting, a hard enduring substance is formed by both entities in place of potential space and individuation, such that each component of the dyad is fixed immutably against time’s natural propensity towards generation, movement, and transformation. Is this not Susan’s fantasy of “an eternity of unbroken fusion and continuity of existence”? Thus, at the expense of enriched mutual living, the annealed identification ensures the survival of genetic material in the service of evolutionary potential (Farhi, 2010, p.486).

Farhi theorizes how the mother-foetus/infant may need to transform into an undifferentiated state of being, in response to intense maternal states during pregnancy. This transformation ‘achieves’ physical survival for the foetus’ at the expense of the possibility of an *individual* emotional life.

Returning to the motivation for conducting this study, being an adult psychotherapist, I knew that any research on this subject done within the adult clinic could not go beyond phantasy material and an examination of it—as was partly the case for Milner (1969) and Farhi’s (2003, 2010) case studies— and I decided that I would like to *observe* pregnant women to understand their experiences and their phantasies to see if these could influence foetal

experience. To explore this relationship, I would also observe mothers and their infants together to see if we can infer a relationship between maternal experience and foetal experience as manifested in early months of life and the early emotional and relational development of the infant.

1.2 Adapting to the world that awaits: thinking about foetal experience

Freud (1926) speculated about the continuation between intrauterine life and early months after birth but, he still described the infant as an “unhatched chick within an eggshell” (as cited in, Meltzoff, 2002, p. 9), saying that the infant is cut off from the external world of relationships. Piaget (1952, 1954) followed suit and described the infant as solipsistic and that the infant only interacted with the world with the limited reflexes that he possessed, not really having a purpose within these interactions. Behaviourist like Skinner (1953) disregarded the relational world, describing the infant as a blank slate and contesting that infants (and even adults) were a summation of their learned reactions to behaviours over time. Although differing in their theories about development and the discipline they occupied, what all three thinkers had in common was that they derived their theories about the child and infant from observing it.

Inspired by observing her own children, Klein (1946) was one of the first psychoanalysts who formulated the infant as being object-driven from birth and having a lively psychic world dominated by unconscious phantasy and a desire towards a need-fulfilling other. She formulated that phantasy was a form of mental activity which was present from birth and that these phantasies are an expression of instincts but that these instincts go beyond feeding and the need of being fed (Klein, 1935). In her theories, Klein focused largely on the phantasy material of the infant, ignoring the reality and impact of the mother and mothering.

Differing from the wildly popular Kleinian theories of the times, Bowlby asserted that: “there is such a thing as a bad mother” (Mitchell & Black, 1995, p.114). This assertion heralded Winnicott’s importance given to quality of mothering. Winnicott was a practicing paediatrician before becoming a psychoanalyst and he spent a great amount of time observing infants and their mothers interacting with each other. He (1960a, 1969) agreed with Klein and defended the view that infants were subjective beings who depended on and understood the intersubjectivity of their mothers. Winnicott differed from Klein on the importance he gave to the quality of the relationship between mother and infant, famously saying “a baby can be fed without love, but lovelessness as impersonal management cannot succeed in producing a new autonomous human child” (1971, p.127). Winnicott (1968) observed that infants ‘go-on being’ in a blissful un-integrated state unless mothers demand them to give up their subjective omnipotence, forcing a reaction from the infant. This reaction resulted if the mother was not able to be on the same rhythm as the infant. To be able to achieve this rhythm, Winnicott (1960a) defended that the mother would need to forgo her subjectivity for a period of time, starting from pregnancy. Towards the end of his career, Winnicott (1982) expanded the scope of the environment in which he believed problems in the building of the self can start and that good-enough mothering applies to, theorising that learning to adapt to the environment can start in utero.

In the last three decades, inspired by Winnicott and other developmental theories who discuss infant development and the importance of mothering, there has been a boom in observational studies trying to explore the emotional world of the infant (Beebee & Lachmann, 2014). What has emerged from these observational studies is how sensitive infants are to their environment and their readiness for engaging with it. There is a rhythm and pattern in the movement of infants, helping us infer that some degree of integration must be in place (Field, 2007; Music, 2017). We have gone beyond the conceptualisation of a blank slate baby who is

selfish and self-centred in his interactions with his environment, to an infant who is inferred to have an innate ability to perceive the world and imitate it. An infant who seems to have a motivation and intentionality towards and communicates with his environment (Margolis et al, 2019; Beebe et al., 2016). An infant who has a capacity to make some inferences about the subjectivity of others (Meltzoff & Moore, 1983, 1989; Meltzoff, 2002; Stern, 1985).

When we can think of the infant as being born with rudimentary abilities for intersubjectivity, we may start thinking of a possibility of 'knowing' that starts even before physical birth and before what Mahler (1963) calls the psychological birth. This understanding then raises the question if this knowing comes from evolutionary blueprints, genetic inheritance or perhaps if there is some sort of 'learning' that starts even before physical birth that might be coming from experiences in utero. If we would like to think about a learning that takes place in utero, we will have to conduct a deep investigation into the physical and emotional processes of pregnancy and how the foetus might be influenced by it. Here, I would like to focus not on the already established effects of physical realities and how they affect a foetus, like smoking or drinking, but how the emotional states of a pregnant women might influence her foetus.

There are as many unique pregnancies as there are pregnant woman. Every pregnancy mirrors the woman's life prior to conception: Especially important are her experiences with her mother, father, and the consequent oedipal triangle (Brazelton & Cramer, 1991). Who the pregnant woman is, with whom this conception was achieved, where and when it was conceived and what meaning childbearing has for the woman all have direct implications on how each pregnancy will be experienced (Caron & Lopes, 2017; Piontelli, 1992). Even if the pregnancy was a long-awaited, joyous event, every pregnancy bears within itself ambivalence because with creation there is also a loss of what was before.

Although each pregnancy journey is different according to the woman and her point in time, each milestone in the pregnancy and the meanings attributed to it can wildly differ. As Raphael-Leff (1993) describes it,

...she [the pregnant woman] may at times imagine her baby as an innocent guest, a depleting parasite, sapping her energies; an intrusive alien, contaminating her insides; an internal saboteur, who may attack and damage her; a confined prisoner, a vulnerable being, or a friendly inmate... In the absence of knowledge about her baby, the womb becomes a receptacle for the woman's fantasies, wishes, fears, and hopes. Her fantasy baby is woven out of the stuff of her dreams and her internal view of herself. Like an imaginary friend, it is a mirage acquiring shape and solidity from borrowed narratives and emotional residues of her inner story. Throughout pregnancy, fluctuations occur in the expectant mother's attachment to her fetus [sic]. These may be determined by her health, the emotional support she receives, demands by other dependents, and, above all, the internal resources on which she draws (p. 49).

In the unknown of pregnancy, the phantasies the pregnant woman has about her foetus have direct implications on how she experiences her pregnancy and the relationship she starts to build with her foetus and future baby. Pregnancy is a process that the expectant woman and her foetus develop in together, both physically and psychically. In this maturational process, meaning, creativity, flexibility, and openness to change are of utmost importance.

It can be argued (Verny & Kelly, 1988) that the most intimate bond that one can experience is between a mother and her foetus, but what is often disregarded is the absolute physical and psychic fusion formed during these months and the implications of it. Genetic studies show us that there is a conflict for survival between the mother and her foetus, what is

best for the foetus is often not best for the mother consequently about 75% of implantations fail (Badcock, 2000; Haig, 1993). In addition to the genetic conflict, the negative conceptions of the mother towards her unborn child, conscious or unconscious, have major implications for the psychic development of the human foetus (Raphael-Leff, 1993). Even if there is no psychopathology actively present in the mother before, during pregnancy unconscious problems may be triggered and since issues during pregnancy are usually carried to the postnatal environment, a vicious cycle of prenatal adverse experiences and the narrative of it may be activated. So, two main questions arise, how can the mother's experience during pregnancy affect the foetus and how do the re-enactments of generational adverse experiences and the conflicts created by them affect the foetus? A foetus can have intrauterine experiences which are registered as memories in the body (Piontelli, 1992; Winnicott, 1982) where proto experiences of consciousness and self-other conceptions start to emerge (Maiello, 1995).

We may try to gain knowledge about the internal world of the foetus in a myriad of ways; the close examination of psychopathology, nature of transference in the clinical setting, reading of play and dreams of young children and adults (Waddell, 2019) or using the Bick method (1964) of observation of ultrasound images of the intrauterine environment (Piontelli, 1992). There is much debate when the birth of the psyche occurs, some contesting that it is during physical birth, some saying it is somewhere around 4-6 months of life, but some contemporary psychoanalytic thinking has traced it back to intrauterine life (Caron & Lopes, 2017; Piontelli, 1992; Waddell, 2019). The work of Piontelli (1992) and recently Caron and Lopes (2017) has shown us the undeniable continuity of behavioural patterns and subsequent echoes of them in the functioning of the infant with intrauterine life. Although there is a big reality of the *nature* of the womb, it has been shown that the *nurture* of the mother and her environment plays a big role in the physical and psychic development of the foetus (Music, 2017, 2024) but as Piontelli (1992) points out, "nature and nurture have been interacting for so

long in the womb that it is impossible to disentangle them; even the idea of nature and nurture as separate entities comes to seem much too crude to be useful” (p. x). Furthermore, the nature of the womb (the placenta, amniotic fluid etc.) are concrete facts but, these facts are influenced by the mother’s conscious and unconscious in the way she interacts with her own body and the environment (Waddell, 2019). So, we may view psychic life as a continuum starting with gestation, birth and other major developmental milestones being points on that continuum and these events always interacting and being affected by the environment, starting with the mother.

The mother’s body is the most influential determinant on the foetus and a pregnant women’s emotional states are predictive of the first year of the infant’s behaviour (Fonagy et al., 1991, Sandman, et al, 2012). Through the nature and nurture of this body, the infant is born with an intricate matrix of emotions and is invested with others’ emotions (Parker, 1995; Waddell, 2019) but the infant may seem much less complex than its abilities because with birth, many of his freedoms are lost (Piontelli, 1992). Furthering this point, perhaps the foundation of un/healthy development *starts* in the holding environment of the mother’s body during pregnancy. For example, we know from studies of Dutch women who were pregnant during World War II, that prenatal experiences have lasting effects, regardless of later state of mind of the mother. The children of these mothers who had limited access to food due to the war, developed slow metabolisms and their bodies were inclined to store fat. The effects of the prenatal environment were not only observed in physical functioning but many of these individuals in the sample developed later psychiatric issues too (Lumey et al., 2007).

1.3 Research problem and research questions

The concept of foetal experience and its possible effects on future emotional development is an understudied and controversial subject. Starting from Freud (1926), psychoanalysts have cautiously speculated about the possible continuity between pre- and post-

natal life but, up until the 1990s (except for Arnold Rascovsky and Luis Feder who wrote some speculative papers), psychoanalysis had chosen to shy away from this hard to study subject. Around the same time, there was a boom in video studies and observational experiments with infants to study their interactions with the environment and their mothers. Piontelli (1992) and more recently Caron & Lopes (2017) have expanded infant observation to ultrasound imaging, trying to have a direct look at the possible continuity between pre- and post-natal behaviours of foetuses and infants.

Caron & Lopes's (2017) longitudinal study which follows 6 infants—2 singletons and 2 sets of twins—and their caregivers blew up the classical frame of infant observation, studying foetal behaviour in utero through ultrasound imaging and continuing this infant observation in the first three years of life to explore for this continuity. In their book, *Learning About Human Nature and Analytic Technique from Mothers and Babies*, Caron & Lopes (2017) provide evidence that emotional development is continuous from prenatal life through to the first three years, rather than emotional development beginning abruptly at birth. Through conducting infant observation of foetuses using ultrasound imaging, they observed that foetuses already exhibit distinct patterns of responsiveness and sensitivity to their environment and ways of regulating themselves using their bodies. With the observation of twin foetuses, they argue that we can especially see unique emotional worlds emerging in the way that twins act 'different' to each other and interact with each other. Caron & Lopes (2017) infer that these unique characteristics of the foetus are influenced by the mother's emotional states during pregnancy and the developing relationship between the mother-foetus. They argue that early prenatal experiences and 'memories' are not lost at birth but instead they form the foundation for postnatal emotional life. This suggests that the infant arrives to the postnatal world with an emerging emotional world, shaped by prior relational and bodily experiences.

After birth, these early patterns and characteristics are seen to persist and gradually transform, becoming more complex as the infant engages with their caregiver(s) and their environment. The mother–infant relationship plays a central role in the continuity between pre- and post-natal life, as the mother both interprets and regulates the infant’s emotional states. An important observation that Caron and Lopes make in their book is that parents often make assumptions about the personality of the foetus, through *their* observation of foetal movement as seen in the ultrasounds and the mother’s interpretations of their bodily sensations relating to foetal movement. Although Caron and Lopes do not explicitly discuss this, the observations also show us how these perceptions of the foetus may affect the caregivers’ attitudes towards their developing foetus/infant too.

Overall, Caron & Lopes’s (2017) work emphasizes that emotional development is a relational and dynamic process unfolding over time, with no clear dividing line between prenatal and postnatal life. Instead, they view infancy as a fresh starting point, arguing that the first three years represent an elaboration of emotional tendencies formed during foetal life. This perspective has important implications for psychoanalytic theory and practice, particularly in understanding how foetal experiences can influence later emotional functioning and relationships.

Even though these revolutionary empirical studies have drawn parallels between the pre- and post-natal world and have shown us the possibility of foetal experience, no empirical research has had a special focus on maternal phantasies and if these maternal phantasies during pregnancy can influence foetal experience and have an effect on the early functioning of the infant and the early relationships with his environment.

In this thesis, I set out to explore the relationship between maternal phantasies and perceptions during pregnancy and foetal experience and how infants’ ‘experiences’ and

‘memories’ of their prenatal life might influence their early emotional development, colour their relationship with their mother and early interactions with the external world.

It is important to note that for the scope of this thesis, I am trying to answer only *if* there may be a relationship between maternal phantasies and foetal experience and if we can observe the influence of this in the first months of life. This thesis is first and foremost an exploratory piece of work and does not set out to predict the effects of maternal phantasies on the later functioning of infants.

Although this thesis cannot answer the question of *how* this relationship does take place, the literature review includes research from neuropsychology, epigenetics, biology, and experiments conducted with animals that may start to examine some answers to these mechanisms of *how*.

1.4 Outline of thesis

To address the research problem and answer my research questions, this thesis is structured as follows:

Chapter 2 *Psychological aspects of pregnancy* presents literature on the processes of pregnancy and the central emotional conflicts that women might face during it. Special attention is given to how a psychic equilibrium can be reached within the changing identities of the pregnant woman and how she might experience this period of her life with loss and anxiety or as a transformative opportunity. Some discussion about romantic relationships during pregnancy is presented in the last subsection of this chapter.

Chapter 3 and 4 *Experience of the foetus and Intrauterine adverse experiences* discusses what literature tells us about what and how foetuses might have experiences in utero which get ‘remembered’ in the postnatal world. What might be traumatic in utero is explored with clinical examples, ending with a discussion about the influence of intergenerational experiences.

Chapter 5 *The birth experience and first months of life* deals with the role of physical birth and how it might affect the pregnant woman and her later relationship with her infant. Explanation about why 6-months of age is an important time in development and how observing this period might give us clues into prenatal life is made.

In Chapter 6 *Methodology*, discusses the chosen method for carrying out this research with the rationale behind it. Information about the research design and participants are given along with a discussion of epistemological concerns and ethical considerations. The investigation into these research questions was done in two separate domains of empirical study. Firstly, semi-structured interviews were conducted with five pregnant women followed by infant observations when their babies were born and were 6 months old.

Chapter 7 presents findings from the 5 semi-structured interviews conducted with pregnant women whereas Chapter 8 presents findings from the 10-week infant observations with the infants of the said women.

Finally, Chapter 9 and 10 are the *Discussion* and *Conclusion* respectively, bringing together all the different findings from the empirical research and discussing their implications in line with the literature review. An outline of the limitations of the current research along with recommendations for future work are given.

1.5 Situating the Literature Review and Research

The search for the literature review was started in September 2020 in the online search engine of University of Essex Albert Sloman library, to identify physical books or Ebooks available through it. Additional searches were conducted in the databases PepWeb, PubMed and Taylor and Francis Online. Where possible (PepWeb), “match synonym” option was selected to make sure relevant resources were not missed due to choice of wording.

Key concepts identified and searched for as ‘keywords’ were: *motherhood; parenthood; pregnancy; parental mental health; childbirth; mother-baby; infant observation; infant observation research; perinatal period; prenatal psychology; foetal development; foetal life; memory in infants.*

Every individual search term was supplemented with relevant free text terms. When appropriate, the free text terms were shortened in order to include alternative word endings. The search results were limited to academic books or journal articles that were written in English, Turkish or Spanish (which the author has native/bilingual and/or limited working proficiency in) and to journal articles which were peer-reviewed. No other filters or restrictions were used. The database searches were complemented with a manual review of the reference lists of relevant articles. Citation links of identified relevant articles were also used along with a manual review of other publications of authors which were identified as relevant. These further searches resulted in additional articles included in the study.

An additional manual search was done on the journals *Infant Observation: International Journal of Infant Observation and Its Applications*, *Journal of Child Psychotherapy*, *Journal of Infant, Child and Adolescent Psychotherapy* and *The Psychoanalytic Study of the Child* to identify relevant articles which might have been missed with the key concepts previously identified. This manual search resulted in additional articles being included in the study.

As laid out in the motivation section (Ch 1.1) of this thesis, the literature review was conducted, trying to identify relevant studies which explored the relationship between maternal experiences during pregnancy and foetal experience and to investigate if we can see some echoes of said foetal experience in the emotional and relational development of the later infant. The literature review trying to shed some light on this subject, was started off more generally with the keywords identified. This preliminary research identified a unique gap in exploring

the relationship between maternal experiences during pregnancy and foetal experience; the importance of psychic defences used by the pregnant woman during pregnancy, namely the construction of maternal phantasies to cope with the challenges posed by pregnancy, physically and emotionally. This topic and gap was identified as a key way of exploring the relationship between maternal experiences during pregnancy and foetal experience.

The works of Nara Amália Caron and Rita Sobreira Lopes (2008, 2015, 2017), Joan Raphael-Leff (1991, 1993, 1995, 2004), Dinora Pines (1982, 1988, 1990), Rozsika Parker (2005), Alessandra Piontelli (1988,1992) and Kathryn Allen Rabuzzi (1994), found in the literature review, were seminal texts that described the concepts of psychic defences during pregnancy, phantasies utilised by pregnant women during this time and the possible consequences of both on the development of the foetus, the emotional life of the later infant and the mother-infant relationship. Raphael-Leff (1993) describes that, “[i]n the absence of knowledge about her baby, the womb becomes a receptacle for the woman's fantasies, wishes, fears, and hopes. Her fantasy baby is woven out of the stuff of her dreams and her internal view of herself” (p.49). With the unknown of pregnancy, the womb and the foetus become both an arena for projections but also a mirror for the pregnant woman. Put simply, how the pregnant woman views her *self*, will affect how she constructs a perception of her foetus/infant and maternal phantasies make the ‘unknown’ of pregnancy more ‘known’.

With this understanding, there was a conscious decision by the author to take the mother as the context (Ogden, 2011) in which the preliminary emotional development of the foetus took place, within the processes of projection and introjection between the mother and infant/foetus (Rustin, 2022). To understand and conceptualise this context, jumping off from the aforementioned understanding of the emotional challenges and consequences of pregnancy, studies that were chosen to be further investigated manually and included in the literature review, were ones that described pregnancy as a repetition of early developmental phases

which negotiate issues around self, identity and the task of separating from their own mother/caregiver.

Chapter 2: Psychological Aspects of Pregnancy

Pregnancy is a hormonal, physical, and psychological earthquake that carries with it the greatest challenges, secrets, and uncertainties faced by human beings.

Caron & Lopes, 2017, p. 28

2.1 The processes of pregnancy

When does a woman become a mother? Stern (1998) famously asked. His description of motherhood claims that this shift in a woman's identity starts during pregnancy, as the woman starts trying to incorporate this new part of herself, into the identity of who she is. Pregnancy then becomes the time where most of the 'mental work' of preparing to become a mother takes place. Giving birth to this new identity when becoming a mother, can be as demanding and painful as the physical act of giving birth and demands much psychic energy from the woman (Stern, 1998).

Each pregnancy and how a woman experiences it is different but, we can divide the whole process into three distinct phases corresponding with the three trimesters. During these three phases, the woman's attention shifts from the idea of being pregnant and what it means to her, to thinking about her foetus, finally to thinking realistically about a baby and what the birth process will be like (Raphael-Leff, 1991, 2004). The three phases also resemble early developmental phases that the mother had gone through when she was a baby. This 'rehearsal' for becoming a mother in the repeated experiences, going from symbiotic merger to differentiation/individuation to separateness (Mahler, 1963; Mahler et al., 2008), if gone through in a 'good-enough' manner, lets the prospective mother get ready to handle these phases for her future baby (Raphael-Leff, 1983). An important point we must keep in mind whilst studying all the maturational phases of pregnancy is that psychological experiences are

embedded in somatic experiences. What takes on consequence is the *meaning* that the woman gives to the physical symptoms of her pregnancy.

The first phase of pregnancy is the one most ridden with ambiguity and anxiety. The main theme of this phase of pregnancy is the woman trying to adjust to her forming identity, learning to listen to and interpret her body and pregnancy symptoms and perhaps scariest of all, trying to cope with the fear of a possible miscarriage. Her sense of fear and accompanying anxiety may be heightened if she has had previous experiences of miscarriage. To deal with the anxiety caused by all this, the woman may resort to ritualistic or obsessional behaviour, or she may resort to a complete denial of the dangers of this phase, adopting a deterministic stance towards the growth inside her (Rabuzzi, 1994). She may even wish for a spontaneous abortion, to counteract feelings of helplessness (Brazelton & Cramer, 1991). Besides the fear of miscarriage, there is also anxiety caused by the adjustment needed to the woman's sense of self and identity. The woman may oscillate between feeling overwhelmed by the newly emerging demands made towards her psyche to complete unawareness of the process (Raphael-Leff, 1991). To cope with these oscillations, the mother could resort to psychic defences which may help alleviate her feelings of helplessness.

The main emotional theme of the second phase of pregnancy is the psychic realisation that there is a real baby inside. This means, the expectant woman must come to terms with sharing her body with another which becomes further conflicted by a triple identification: an identification with *herself* in the womb of her mother. If a troublesome relationship was present with her mother, this further identification may heighten dependency needs or push the woman to completely deny her, and her foetus' needs (Music, 2024; Raphael-Leff, 1993; Rubin, 1984). She might also perceive the foetus as a rival sibling and the overriding emotion might become envy. What takes on importance here is the flexibility of the expectant mother; if she is freely able to swing from an adult state to a childish one without much heightened anxiety and sense

of vulnerability, she will be able to pass through pregnancy without much conflict to her psyche.

In the final phase of pregnancy, the woman is taken by different sources of fear: the process of labour, what would happen if her baby was to be born early and a general fear of the unknown. With the day of labour looming, the irrevocable reality of becoming a mother sets in. Especially if the woman is a primigravida, anxiety of the unknown is heightened. Further, the sheer size of her belly will disable her from daily activities like driving or having sex, curtailing her freedom, and providing a general sense of physical discomfort. Although some women enjoy this final phase of pregnancy because they can take their maternity leave and spend time 'alone' with the baby, others resent the baby who seems to have overtaken her life and disrupted her routine (Caron & Lopes, 2017).

2.2 Psychic interchange and changing identities: Maternal Subjectivity and Matrescence

Winnicott's focus on the importance of the relationship between mother and infant, and his concept of 'good enough mothering' (1953) is the foundation in which many contemporary understandings of maternal subjectivity are rooted. Winnicott described how in late pregnancy and the early postpartum period, women go into a state which he called Primary Maternal Preoccupation (1956) which describes a state of being where the pregnant woman or mother is intensely attuned to her infant's needs. This temporary state involves her narrowing her attention to the infant's needs, with heightened sensitivity and withdrawal from her other interests. This sensitivity and withdrawal, Winnicott defended, allowed the mother to empathically to respond to her infant's dependence. Winnicott (1956) called this state "almost an illness" (p. 302), but for the temporary time in late pregnancy and early postpartum period, is necessary and adaptive for the infant's emotional development rather than a pathological

condition. Although Winnicott's focus was on the building of the infant's subjectivity, through the mother partly giving up her own for a period of time, what was revolutionary in his writing was the recognition that mothers' need not be perfect to be a good mother but that they can be fallible. He also added that 'mistakes' in motherhood were possible and needed for the healthy emotional development of the self of the infant and the eventual needed separation between mother and infant (Winnicott, 1953, 1971). Winnicott also recognised that the infant being the 'centre' of the mother's world was only necessary for a short period of time (Winnicott, 1956).

Feminist theory has been critical of Winnicott, and feminism in general, has had a complicated relationship with motherhood and recognising the importance maternal subjectivity (Sidesinger, 2024). Second wave feminism worked towards women's freedom to be *subjects* especially in the context of sexuality and being in the workplace. In the 1970s, some feminist theorists formulated motherhood as a patriarchal institution, with the solution being to denounce motherhood (O'Reilley, 2019). Such readings of motherhood fail to capture the socio-cultural constellations of motherhood, by presenting an individual solution to difficulties mothers experience, both in areas like childcare and burdens of domestic life but also mental health difficulties. In discussion with the issues between feminist theory and motherhood, O'Reilley (2019) points out that "[m]otherhood is the unfinished business of feminism" (p. 13) and that more work needs to be done in understanding mothers as *subjects*.

Sidesinger (2024) argues that by recognising becoming a mother as a *choice* rather than simply a socially constructed obligation, we (and feminist theory) may re-centre attention on mothers' subjective experiences and acknowledge that these experiences vary between individuals. Herein lies the importance in building a viable understanding of maternal subjectivities and the challenges in becoming a mother. This recognition of mother's subjectivity is also crucial for the emotional development of the infant as Baraitser (2006) argues:

If the child does not have a mother whose subjectivity is recognizable, then the child cannot hope for recognition herself. In its crudest form, the mother can finally be thought of as having a life of her own. The choice is no longer cast as either/or but the holding in tension of both mother and child's needs and desires (p.223).

The infant's subjectivity and sense of being develops in conversation (Trevarthen, 1979) with the mother's understanding of her own subjectivity and her reflection on her own inner world (Benjamin, 1998, 1995).

Medical anthropologist Dana Raphael (1975) developed the term *matrescence* to describe the profound identity and developmental shifts women experience as they move toward and into motherhood, beginning with the consideration of conception and reproduction. Her research into cross-cultural breastfeeding practices framed childbirth as a rite of passage marking transformation not only for the child, but for the mother herself. The challenges faced by women in matrescence are intentionally described as non-pathological, acknowledging ambivalence and conflicting feelings in this development journal as normal and expected. Many pregnant women and new mothers, for example, experience joy and sadness simultaneously as a fundamental reshaping of their core sense of self identity is taking place.

Building upon Raphael's theory, clinical psychologist Aurélie Athan (2020) has described matrescence as being a state like adolescence where the pregnant woman/prospective mother, goes through many physical and emotional changes:

Much like adolescence, but nested in the niche of mid-life, it is an experience of dis-orientation and re-orientation marked by an acceleration of changes in multiple domains: physical (changes in body, hormonal fluctuations); psychological (e.g., identity,

personality, defensive structure, self-esteem); social (e.g., re-evaluation of friendships, forgiveness of loved ones, gains in social status, or loss of professional status), and spiritual (e.g., existential questioning, re-commitment to faith, increased religious/spiritual practices) (Athan & Reel, 2015, p. 9).

This conceptualisation of matrescence as being akin to adolescence, with the different changes and conflicts that both matrescence and adolescence bring to the individual, is a productive understanding of the *developmental process* that becoming a mother is.

Reflecting on psychoanalytic theory's engagement with the concept of matrescence, Sidesinger (2024) notes, that the term matrescence has been absent from psychoanalytic literature up until 2023 although it had become a widely used term in women and mothers in conversation on the internet and mother-support workshops. Although the term matrescence may not have been explicitly used, starting around the 1990s, contemporary psychoanalytic theorists building upon the works of Melanie Klein and D.W. Winnicott had drawn our attention to the changing identities of pregnant women and mothers, together with the difficult but needed work of incorporating the role of 'mother'. These theories do not point towards the loss of a previously independent self—as such a state does not exist—but that motherhood or maternal subjectivity is a condition where the self undergoes a radical and fundamental transformation (Baraitser, 2006).

2.2.1. Dynamics of and difficulties in changing identities

The desire to become a mother emerges from several different psychic needs including a need for identification, fulfilment of narcissistic needs, and a wish to recreate, or mend, previous interpersonal relationships with a new baby (Brazelton & Cramer, 1991). Within these differing emotional needs, there can emerge conflicts rising from discrepancies between

fantasy versus reality—of what the woman imagined motherhood would look and feel like versus what is the reality of the postnatal environment. There may be great emotional investment and grand phantasies of what the foetus/future infant will be like, to replace previous frustrating or disappointing relationships. This will no doubt lead to disappointment when the mother meets her real baby. If the imagined baby is not relinquished, or the unfulfilled phantasy is never mourned, the real baby may never be an individual for the mother (Rabuzzi, 1994; Raphael-Leff, 2004).

Becoming a parent is a colossal event which requires one to transform their whole sense of identity where the individual, once someone's daughter, is now a mother. The uncertainty of the outcome of this transformation, Raphael-Leff (1995) argues can breed "speculative expectations" (p.79) where the pregnant woman may turn to phantasies, daydreams and/or ruminations to gain an omnipotent control over and to fight off the anxiety bred by this uncertainty.

Pregnancy may also revive conflicts and anxieties experienced by the pregnant woman in her early life and destructive envy which may end in foetal abuse, due to the perception of total responsibility towards the helpless foetus. These disturbances potentially arise because pregnancy is a vulnerable time where perceptions of past/future, self/other, me/not-me, phantasy/reality, male/female, inner/outer, helplessness/control get mixed. These possible blurring of boundaries may cause confusion in the pregnant woman's psyche, where the future infant may be seen as a reflection of the self and the pregnant woman may love, hate or be ambivalent towards this reflection. Pregnancy can also be felt as an *active re-enactment* of previous experiences of being the scapegoat of a tyrannical parent, only now the roles are reversed (Brazelton & Cramer, 1991; Pines, 1981; Raphael-Leff, 1995).

Contrary to the arguments presented above, the potential emotional gains during pregnancy should also be kept in mind. The desire to be 'complete' which can be achieved with

pregnancy is an emotive experience which has the function to provide the expectant mother to experience her body as potent and productive (Raphael-Leff, 2004). The physical and psychic symbiosis achieved during pregnancy also fulfils childish fantasies of fusion with mother which can boost self-esteem (Kohut, 1971). Another important developmental need for any child, mirroring (Winnicott, 1971) can be achieved in pregnancy through the woman seeing herself as a mother in a healthy self-image. These all serve as corrective experiences that have the potential to mend previous, conflictual relationships, especially with one's own mother (Brazelton & Cramer, 1991; Pines, 1981).

A predictor of how the pregnant woman will experience becoming a mother largely depends on if she is able to tolerate what Parker (2005) called maternal ambivalence which is the experience of having love *and* hate emotions about one's foetus/infant at the same time. This, Parker argues, is not something that *some* mothers experience but that *all* do. What differentiates the experience and practice of both pregnancy and motherhood is how conscious the individual is of these simultaneous emotions and how much she can tolerate them.

Maternal ambivalence, or more specifically the tolerance of it, allows for the attributes of creativity, flexibility and openness to change which are all critical for the maturational process of pregnancy. These features of motherhood and personhood promote thinking about their foetus/infant and the emerging relationship with them. Beyond thinking about another being, another important gain from maternal ambivalence is the capacity to think about and reflect on the changes that is happening for the pregnant woman, both externally and internally. Externally, there will be the inevitable changes in the physical body and the necessary accommodations to daily life during pregnancy and motherhood. Internally, the pregnant woman will be grappling with the adjustments to and the reworking of their identity (Parker, 2005; Raphael-Leff, 1995, 2004).

Of course, the co-existence of the loving and hating emotions about one's foetus/infant or about being pregnant is a difficult state to be in constantly and a state that can trigger guilt and anxiety (Klein, 1946). These feelings can get further entrenched with societal expectations of what motherhood should look and feel like, alongside the common use of other mothers as mirrors and a measure of 'success' in motherhood or pregnancy (Parker, 2005). Herein lies the biggest challenge to the toleration of maternal ambivalence. With the near constant effort that the co-existence of opposing emotions take, more primitive defences like denial may be used against the awareness of them. This 'painful ambivalence' that needs to be denied also denies thinking. Such a denial does not mean the elimination of conflictual feelings but potentially, the unconscious repetition or acting out of them (Freud, 1914). The denial of negative emotions stops the creative process of mothering and can lead to what Raphael-Leff (2004) called 'primary maternal persecution' where the experience of motherhood becomes overwhelming and the mother is unable to sustain the difficult task of maternal containment. Here, the denied negative emotions may be transformed into feelings of being invaded or persecuted. The concept of 'primary maternal persecution' is the antithesis of 'primary maternal preoccupation' (Winnicott, 1956) which enables the mother to be attuned to her infant's needs and a general ability to recognise their emotional states. We can say that in primary maternal persecution, the mother's emotions and needs take precedence for the mother, making it difficult if not impossible to recognise the individuality of the infant.

2.3 Placental Paradigm

Building on her work with expectant mothers and years of psychotherapeutic practice with mothers and couples, Raphael-Leff (1993) proposed a model that describes the psychic interplay between mother and foetus and their consequent patterns/conflicts. The Placental

Paradigm model (figure 1) imagined an interchange via the umbilical cord and placenta between the expectant mother and her baby as a two-way process of giving of substances and taking and filtering them. Based on the expectant mother's perception of whether this exchange is viewed as neutral or harmful for her, she may put up imaginary walls or barriers between herself and the foetus. This perception largely relies on her unconscious notions about the foetus and her own image of herself as being good or bad. Although these perceptions do fluctuate throughout different stages of pregnancy, for each individual pregnancy, the overall orientation largely stays the same. This model, Raphael-Leff (1993) argues, can give us a clear picture of how a woman's self-image and emotions towards her unborn child impact the emotional journey of pregnancy but it is also predictive of postnatal care and how she behaves as a mother in the future. Here we can see the crucial, predictive quality of this model.

A mother who can allow herself to experience her child as both quietly and comfortably growing inside her and as also depleting and tiring her out, will be able to be a good-enough mother, only perceiving it as a good-enough baby. On the contrary, if the pregnancy is solely idealized as a blissful symbiotic merger, the mother will expect the same closeness in the years to come, going into a narcissistic interplay with her child, if she is unable to mourn the physical separation of the previously idealized state.

If a pregnant woman feels an internal threat coming from the child, she may detach herself emotionally, living life as-if she were not pregnant. This course of action can be interpreted as an attempt to be rid of the child, consciously or unconsciously causing it emotional or physical harm. Conversely, if the pregnant woman feels she is the threat towards the foetus, anxiety may shadow the pregnancy, deepening a negative self-worth.

Figure 1

Placental Paradigm

MOTHER	BABY	PSYCHIC INTERCHANGE
±	±	ambivalent coexistence
+	+	idealized exchange
+	-	mother's barrier against 'parasitic' baby
-	+	mother feels dangerous to vulnerable baby
+/-	0	bipolar conflict; good/bad splitting; baby = non-entity

Reprinted from Pregnancy: The Inside Story (p.53), by J. Raphael-Leff, 1993. Karnac Books.

Copyright 1993 by Joan Raphael-Leff.

There is no one 'right' or 'correct' pregnancy but, we do have to address the issue of pathological ones; expectant mothers who can be classified as negligent or even abusive. In later chapters the issue of what might happen to the foetus and later child in these instances will be addressed, but now I would like to focus on the psychic mechanisms of these mothers and the symbolic meanings of these acts during pregnancy. For the mother, the foetus is in an imaginative intermediate area, like a transitional object (Winnicott, 1953), but what is most evident is the constant interaction of external and internal realities and how they play with a new way of being for the expectant mother and the rebuilding of her identity. These mechanisms are negated via the mechanisms of displacement, projection, and enactment of unconscious phantasies. Many intolerable states, stemming from unresolved oedipal issues, problematic relationship with the expectant mother's own parents, rivalry with siblings may lead to immense anxiety. Many women report that they felt they needed conscious effort to

fight these anxieties and fight the inner representations of a destructive mother during their pregnancy (Piontelli, 1992; Raphael-Leff, 1991, 1993).

It is important to see the interaction of how a mother's female sex interacts with her family, subculture, and ethnicity too. What comes from her family's ideals colour how the woman views her sexuality. What were the expectations from her own mother? Was motherhood and pregnancy always idealised? Depending on the answers, the meaning of the pregnancy for the woman will differ (Caron & Lopes, 2017), be it a life-long dream or a dreaded event that the woman had been avoiding. The pregnancy may be a substitute for a previously miscarried baby or a psychic substitute in hopes to fill a void in her life. At times, the pregnancy may not have much to do with the baby that is to come. The baby and the woman's ability to get pregnant may be a proof of her sexuality and virility, a confirmation of her creativity. It might symbolize a return to a blissful fusion with her mother or it might provide her further proof of her dividedness with her mother. It becomes very important here that the weight and quality of the meaning given to the baby be closely inspected because it might be predictive of many future disturbances like postnatal depression or child abuse.

2.4. Loss and Transformations

Pregnancy can be regarded as one of the biggest rites of passage for a fertile woman who becomes and decides to stay pregnant and one of the biggest challenges to her identity. While facing this huge challenge to her identity, the woman is forced to confront and evaluate herself. From this evaluation, what emerges may be a loss of who the woman was before and transformation of her identity (Rabuzzi, 1994). It is not only the physical body that is changed during pregnancy, but a whole sense of self must be adjusted to a *new way of being*. An initial reaction from the woman may be denial that she is pregnant. This denial may emerge for an

array of reasons: being single, not being ready for a kid or simply being taken by surprise. When the stage of denial is passed, an even bigger challenge appears, integrating the foetus into her self-identity. Although a challenging task by itself, once integration is achieved a yet another challenge awaits the pregnant woman, the looming loss that will be precipitated by childbirth. Some pregnant women experience the foetus like an internal organ thus “delivery” having a psychic resonance of amputation (Rubin, 1984), for that mother, it is not the creation of an individual but the *loss* of a part of self.

Another big change to the expectant woman’s identity is to do with the loss of her physical identity and associated self. While pregnant, as time passes the expectant mother’s freedom over her own body is more and more curtailed. She shares her body with another who is ever present and disturbs her daily activities of sleep, eating, work, toilet patterns and social interactions. Especially with mid-pregnancy, her body starts to change in a way that is externally observable. Her belly grows bigger, her breasts become larger with noticeable veins and her waist becomes non-existent towards the end stages. For some women, these changes are welcome, and they are not disturbed by them but for others, especially woman who are preoccupied with their appearance and societal expectations of physical beauty, becoming ‘fat’ while pregnant is a big loss that symbolizes loss of control over body and appearance. This loss also indicates for some woman a loss of physical identity and the associated self. Women who have histories of eating disorders are especially prey to such disturbances during pregnancy. We are bodies moving through space and how we interact with and move through that space affects our inner self and psyche. So, when a woman feels awkward and heavy, even if she knows for certain that it is for a limited amount of time, she may experience a loss of who she was before (Rabuzzi, 1994). No other time is she so alien to her own body since infancy, having to readjust her sense of balance and space. Her senses get heightened, exasperating the alienness of her own body and the surrounding world.

Pregnancy for some women doesn't only signal becoming a mother but also signal a need to make some sacrifices to accommodate her new life and new self. For these women, this need for sacrifice is perceived as a loss. Especially for women who pride themselves with traditionally masculine traits such as athleticism, strive for success, being goal oriented, may have a hard time accommodating to the needs of their newly pregnant body. They may resent that they are more tired, or that they will need to take time off work for that expected baby (Music, 2024; Raphael-Leff, 1991, 2004).

Although the discussion of pregnancy here has been handled under the theme of loss, there should not be a misconception that loss must always carry a negative connotation. Some women do experience pregnancy as a negative experience but often times, loss lends itself to transformation. Loss signals the creation of a new self, a self that is transformed into perhaps a longed-for identity or a welcome stranger; an opportunity for reparation to amend previous adverse experiences.

Thinking about the foetus during pregnancy and constructing a mutual and related identity can make the experience of pregnancy into a positive and transformative one, creating a "motherselfhood" (Rabuzzi, 1994, p.59). Rubin (184) explains this as:

There is a cognitive mapping of the "I" and the "you" and a constant reaffirmation of the "I" in relation to the concept of "you". This mapping is the predominant behaviour during pregnancy and continues through the neomaternal/natal period until the identity of this child and the reciprocal maternal identity are fully constructed. The conceptual interweaving of the reciprocal and instrumental self in relation to the stage of identity of the child binds the woman into this unique relationship mentally as well as biologically (p.9).

As is highlighted here, it is important for the mother to both be in the duality of pregnancy and remind herself of her individuality at the same time. Pregnancy is a time of physical and psychic fusion, but it is paramount that the woman does not lose sight of who she was before becoming an expectant mother and integrate that with her newly emerging identity (Baraitser, 2006; Hollway, 2015).

2.5 Self-concern to concern for baby: fear and fantasy

Each pregnant woman may have within herself a fear that her baby is a monster with the opposing fantasy that it will be exceptional. These fears and fantasies are intensified when the foetus becomes more of a reality with the move into the second trimester when issues about self-hood start to be replaced by concern for the baby (Rabuzzi, 1994). It is not surprising then that history and mythology is riddled with stories of a fiendish conceptions of gods and nature like the Cyclopes of Gaia. But of course, another narrative that emerges here and overlaps with concern about the self is what would the birth of a monster say about the mother? There is a risk that all her sins will be exposed with creation. Such fears are more prevalent in women who grow up with families where sex was a taboo and/or was treated with shame and guilt. In this case, such feelings precede the fear of the baby being born as a monster, but they present themselves when outward signs of pregnancy start to emerge (Raphael-Leff, 1991; 1993).

With modern technology like ultrasound imaging and amniocentesis, the modern woman is lent some help to 'disprove' such fears. Faced with the images or results, the expectant mother may get riddled with other conflicts. She may feel that her and medical staff are being intrusive or voyeuristic. It might even feel uncanny, "peering into the very heart of creation itself" (Rabuzzi, 1994, p.65). Other psychic conflicts include the mother feeling uncomfortable with the physical evidence of separateness from her child. The ultrasound may

also prove to be unhelpful because it can hinder the creative process of her phantasy world (Caron & Lopes, 2017; Hurley, 2017). Fantasizing about the baby, is a bonding act and it is seen that women who do not imagine their baby bond less with them after birth. Additionally, such fantasies prove to be functional as a vehicle for change for mothers who did not have a healthy and happy childhood and do not want the same fate for their baby (Klaus & Kennell, 1982).

The positive effects of ultrasound imaging and early interventions cannot be denied. As physicians suggest, it is a medium for the mother and child to meet, enabling the mother to view her foetus more than a mere parasite, not to mention the benefits of early detections of any abnormalities which enable early and necessary intervention (Oakley, 1984). It becomes important when thinking about modern technology and how it affects the process of pregnancy, starting from before the images were taken. It is important to put the expectant woman's past and current psychic self into context to be able to understand the full effects of these images.

2.6. Becoming pregnant vs becoming a mother

As Pines (1982) pointed out, "there is a marked distinction between the wish to become pregnant and the wish to bring a live child into the world and become a mother" (p.311). Pregnancy can be seen as a part of a life-long quest of separation and individuation of a woman from her own mother and because of this, the woman's relationship with her own mother and the quality of mothering she received gains meaning. If good-enough mothering took place in the woman's childhood then the regression experienced during pregnancy and the identification created with an omnipotent mother is a welcome event, facilitating maturation. If the opposite was true, this regression and identification processes can be very frightening (Brazelton & Cramer, 1991).

Most miscarriages occur during the first trimester of pregnancy while the expectant woman is trying to integrate the foetus into her self-identity. Especially for a primigravida, pregnancy revives past developmental stages and may bring back traumatic conflicts that reveal unconscious phantasies and anxieties. If the oedipal conflict was not resolved, the pregnancy may bring anxiety about what the foetus represents, the fruit of a forbidden intercourse with the father. The guilt accompanying may cause difficulties with the pregnancy (Pines, 1990).

There are two alternatives to resolving any sort of psychic conflict; the foetus may either be physically kept and protected, or it may be physically rejected and expelled, causing a miscarriage or make the woman opt for an abortion. For some women, when pregnancy is learnt, investment is made and if miscarriage does occur, it is a painful loss because the wish to become pregnant for them had the end goal of becoming a mother. But for others, the wish to become pregnant does not have the end goal of becoming a mother. For such women, pregnancy may serve the unconscious purpose of confirming their female sexuality and proving their virility. The foetus may also represent a bad part of the self or represent a bad internal object that must be gotten rid of so that the woman does not get poisoned from within. Their psychic conflict may have *real* physical consequences because of a tendency to somatise psychic conflict starting from childhood when overwhelming helplessness was too much for their ego's functions (Pines, 1980, 1982, 1990).

2.7. The relationship context of pregnancy

It is not possible to understand the intricacies of a pregnancy without looking at the couple. For the purposes of this chapter, I will not be going into detail about pregnancies which are not in the context of a heterosexual couple. As Feder (1980) pointed out, at a psychogenetic level, the external reality of a foetus consists of the history of the immediate biological parents.

When couples come together, they release onto each other, and onto their baby, a pool of unresolved unconscious fantasies. The partner, and later the child, becomes a vessel of hope to actualize wishes and resolve previous conflicts.

The romantic relationship is the closest one gets to the primary, emotional relationship formed with a mother and the parents. Given its parallelism to these early interactions, there are great complexities in this relationship. There can be a space for corrective experience and reparation within the duo, offering sanctuary for everyone from the ghosts of the past. But it is often the case that the romantic partner possesses loved or hated characteristics of these ghosts which might lead to enactments of earlier relational patterns (Raphael-Leff, 1993).

Empirical research on the transition into parenthood has largely looked on the postpartum period of the parent's relationship (Cowan & Cowan, 1995) but, the timeframe of pregnancy itself represents an essential part of this transformation and it is crucial that more light be shed on this period. How a couple navigates this stage is predictive of how they will later function as a trio and a family (Ramsdell et al., 2020). Pregnancy can be a period of loss or can be a period of corrective experiences and transformations. These two options are also true and possible for the father because pregnancy alters pre-existing relational patterns so, emotional expectations need to be re-configured.

The arrival of a baby is unlikely to destroy a well-functioning relationship or repair a damaged one (Cowan & Cowan, 1995) but, what this section aims is to investigate is, how the psychic resonations within each individual and within the couple can affect the adaptation of the couple to a new way of being. A crucial indicator of adaptation within pregnancy and later once the baby is born, is relationship satisfaction (Ramsdell et al., 2020).

2.7.1 Transition into Parenthood

Research around transition into parenthood and curiosity about marital satisfaction of new parents has been booming since LeMasters (1957) made the, back then, shocking claim that around 83% couples experienced moderate to severe levels of crises in their marriage during the first year of the birth of their first child. Although findings had been contradictory in early phases of inquiry regarding the levels, or even existence, of crises triggered by transition into parenthood, contemporary research which approached the subject with a more systemic lens has consistently shown that conflict arises from the changing roles of the now-parents (Cowen & Cowen, 1995; Canário & Figueiredo, 2016).

The new mother and father's sense of individual identity and their identity as a couple need to be re-arranged with a child being introduced into the psyche of each person. A new child does not only need the construction of a new identity as a parent, but the re-arrangement of the parents' investment in *each other* (Cowan et al., 1985). The identity of each parent/partner changes but also their identity *in relation to* each other and how much investment they make to this new identity changes too. It is with these re-arrangements and necessary transformations after birth that the upheaval and conflict in their daily lives and their identities as a couple are caused.

Although conflict is prominent after birth, pregnancy represents a crucial step during this transition because the expectant parents are having to face uncertainty about their future and are pushed to prepare for major changes in their lives. The quality of their relationship in this preparatory stage has ramifications on the family, affecting how each partner relates to each other and to their new baby (Ramsdell, et al., 2020).

When compared to the postpartum period, pregnancy and childbirth are more generally associated with positive feelings between the couple, coloured with cooperation and idealization. This idealization, especially coming from the expectant father, nurtures

interdependence and builds trust and unity for the expectant mother. Although new challenges can and do test existing resources and ego functions, these challenges also foster development and adaptation, equipping the individuals and the couple with new coping skills (Cowan & Cowan, 1995).

2.7.2. Intergenerational aspects and institutional roles

When there is a meeting of two psyches with the coming together of partners in a romantic relationship, we cannot only think of them as a dyad. It must be kept in mind that both partners bring into the relationship their internal objects of parental figures. The parental couple can hold generational boundaries that may contain and nurture needy and dependent aspects of each other. Once their relationship is transformed into a new plane with conception, the woman and the man becoming an expectant mother and father, inevitably become 'institutionalized' with the add-on of inexorable gender roles (Raphael-Leff, 1993). Expectations from each other and from their general social setting change, especially with the add-on of 'in-laws' and friendly experts who have gone through this transition before them. Although the external family becomes a more solidified reality and force in their lives, a triangular relationship that is inevitable and will be ever-present from conception is that of with the foetus-baby. In addition to joys, it also brings on an array of problems like jealousy, competition, and marginalization between the couple (Waddell, 2019). Even when the first baby's arrival is a joyous anticipation, the introduction of a third into the intimate duo of the couple will challenge emotional resources and revive oedipal anxieties.

Although pregnancy is unique for each individual and each couple, in heterosexual duos, biological facts are emphasized, and an inevitable asymmetry is introduced. Even couples who pride themselves in equal sharing of responsibilities, the increased femininity and masculinity around becoming a parent, often lead to unexpected consequences. As biological

facts and unconscious phantasies take centre stage, the expectant mother may desire her partner to pamper her or desire to be mothered by female friends or her own mother. The asymmetries between the sexes may also lead to sexual problems, many women reporting feeling ‘satisfied’ by the force of new life inside her (Raphael-Leff, 1993). This feeling can frustrate the male partner, deepening his feelings of exclusion, jealousy and being left out.

2.7.3. Empirical research on the couple in transition

Research into relationship satisfaction during transition into parenthood has consistently shown that there was lower relationship satisfaction in parents compared to non-parents and that 3 months to 30 months postpartum was the worst time for couples, with positive partner relationship (as defined by intimacy, sexual contact, shared interests, leisure time together) decreasing and negative partner relationship (as defined by conflict, arguments, physical violence) increasing (Cowan & Cowan, 1995; Figueiredo & Conde, 2015).

Looking at the role of stress stemming from lack of experience about parenting on relationship quality for first-time parents, it was shown that couples who had children before still experienced decreased relationship satisfaction. Thus, what was proved more influential on relationship satisfaction had more to do with changing identities- in second-time parents a new challenge being the changing identity of the whole *family* instead of just the couple, with second-time mothers reporting even lower relationship satisfaction (Canário & Figueiredo, 2016).

It is certain that the anticipatory stage of pregnancy is crucial for relationship satisfaction of the couple and it is predictive of functioning of the family unit after birth. As Ramsdell and colleagues (2020) discuss in their meta-analysis, there are five main dimensions that were shown to be associated with relationship satisfaction during pregnancy:

- (a) a high degree of trust and emotional intimacy,
- (b) strong conflict management and resolution skills,
- (c) satisfying sexual experiences,
- (d) high quality support received from one's partner in response to stress and adversity,
- (e) each partner feeling respected and accepted and having sufficient autonomy to pursue individual interests and pursuits (p.564)

The meta-analysis has also shown that some of these dimensions have larger effects on relationship satisfaction, for example it was seen that emotional intimacy had a larger impact on the relationship satisfaction of the mother whereas sexual satisfaction showed a significant albeit smaller effect. Additionally, some were more impactful for expectant mothers only. Received respect was shown to be associated with maternal relationship satisfaction; this could perhaps be explained by the fact that mothers tend to be the primary caregiver, even in 'equal' households and because of biological realities too. Thus, receiving respect and appreciation and feeling valued was very important for them. An interesting finding was that the value of received respect changed for first time fathers. When an expectant father felt respected during pregnancy, the expectant mother reported experiencing higher relationship satisfaction. This might have to do with the ambiguity around becoming a father and the reported sense of losing control during their partner's pregnancy. Whilst the woman is taking on the natural and biological roles mandated by pregnancy, showing respect and helping the father have a sense of autonomy might help him gain back some sense of control.

Overall, relationship satisfaction was shown to be more indicative for mothers' well-being, both physically and mentally, during pregnancy. When an expectant father was involved during pregnancy, the likelihood that the mother would receive prenatal care was higher and the likelihood that the baby would be preterm or be of low birthweight were lower (Hohmann-

Marriott, 2009). Additionally, lower relationship satisfaction was shown to be associated with symptoms of depression and anxiety during pregnancy. In a longitudinal study conducted by Whisman and colleagues (2011), a significant time-lagged effect was shown between poor relationship satisfaction and anxiety. Women started getting anxious when they were worrying about a possibly deteriorating relationship and an unreliable partner. It is important to note that this association was shown to be bidirectional, symptoms of anxiety and depression having a negative effect on relationship satisfaction too.

Chapter 3: Experience of the Foetus

3.1 Maternal influence on the developing foetus

How a mother perceives her pregnancy and phantasies about her foetus are different for each woman and each pregnancy (Music, 2017; Reid, 2013; Waddell, 2019). Becoming a parent is a big event which requires one to change their whole sense of identity where the individual, once someone's child, is now a parent (Raphael-Leff, 1993). It is also a time when 'old ghosts' come back to life (Fraiberg, 1975). It reminds the mother, and the whole family, of mortality and the unbearable vulnerability of being human (Caron et al., 2008). It is probable that throughout the pregnancy, there will be shifts between positive and negative preconceptions and projections as the pregnancy unfolds but, to which meanings and phantasies the mother predominantly swings to will shape the experience of the pregnancy as being traumatic or rewarding (Waddell, 2019). Influenced by her own past experiences of being a child, a mother will draw upon these internal good or bad objects to deal with her inner conflicts (Bion, 1962; Klein, 1946).

With the challenge to the psychic structures of the individual brought on by pregnancy, often, new structures and ways of functioning must be created. This conflict especially takes on a multi-layered nature with the Western idealisation of pregnancy and a perceived need to be filled with only positive emotions. If the mother does not have sufficient internal capacities, omnipotent defences and projections may take control (Caron et al., 2008). In this scenario, we see that "security is achieved by taking refuge in the child" (Freud, 1914, p. 91). Although ultrasound imaging has been ground-breaking in observing the intrauterine life and has aided many pregnancies, the image of the baby may not always be welcome. Sometimes, the

independent movement and will of the foetus cannot be tolerated and the ultrasound becomes a facilitating environment for the parents' projections. As Caron et al. (2008) observes, "[w]hen the baby's image frustrates intense desires and great expectations, the real baby may succumb to the tyranny of the imaginary baby" (p.70). On the other hand, the ultrasound images may cause a traumatic disorganisation by peering into the 'uncanny' (Freud, 1919) and provoke regressive emotional reactions (Caron et al., 2008).

Freud (1926) believed that: "There is much more continuity between intrauterine life and earliest infancy than the impressive caesura of the act of birth would have us believe" (p.138) and speculated that symptoms of anxiety experienced throughout life may be traced back to birth. Building on Freud's speculations, Winnicott (1957) theorized that:

There is certainly before birth the beginning of an emotional development, and it is likely that there is before birth a capacity for false and unhealthy forward movement in emotional development; in health environmental disturbances of a certain degree are valuable stimuli, but beyond a certain degree these disturbances are unhelpful in that they bring about a *reaction*. At this very early stage of development there is not sufficient ego strength for there to be a reaction without loss of identity (p.182).

How the individual reacts and adapts to this environment lay the base of future ones but when the foetus is "forced" to react beyond a certain threshold, disturbing the illusion of unity, a congenital paranoia may arise (Winnicott, 1982). Drawing from the material brought forth by one of his analysands, Winnicott (1982) concluded:

At the beginning the individual is like a bubble. If the pressure from outside actively adapts to the pressure within, then the bubble is the significant thing, that is to say the

infant's self. If, however, the environmental pressure is greater or less than the pressure within the bubble, then it is not the bubble that is important but the environment. The bubble adapts to the outside pressure (p. 182-183).

Although many have been fearful about theorizing about what actually happens to the psyche of the foetus in the womb-- because of our inability to derive causal information about the psyche of the foetus, just like with the infant (Hayman, 1994) -- our theories can only be inferential. Arguing for genetic continuity, Isaacs (1952) states that there are certain established guides and pointers for observing development and to assess the infant accordingly. These certain expected developmental patterns that can be traced backward, enable us to use them as “concrete instrument[s] of knowledge” (Isaacs, 1952, p.75). Adding to Isaacs’ concept, Spitz (1965) points out that not all development is linear, but that there are sometimes quantum leaps in development which seem to happen overnight. These discontinuities make it so that we cannot rely solely on the functioning of the infant *now* to make inferences about earlier states. We must add on to Isaacs’s conception of developmental continuity as an independent system and view the child as developing in the mother-infant unit and that his development is dependent on the functioning mind of the mother as well, taking the mother as a context (Ogden, 2011; Winnicott, 1974). This has the implication that we must go beyond the Freudian-Kleinian focus on *what we think* and move to a Bionian-Winnicottian focus on the *way we think* or in more psychotic states, an inability think, play, or imagine (Ogden, 2014). Drawing from both the theories of Isaacs and Spitz, we can try to build a better method of how we can observe intrauterine life.

As will be discussed below (De Casper & Spence, 1986; Maiello, 1995; Piontelli, 1992), there are certain patterns of behaviour that are expected from foetus in different points of pregnancy. The irregularities in these expected set of patterns may be indicative of certain

problems that may arise postnatally. Drawing on Spitz's (1965) argument, it is imperative that we also do not solely look at the functioning of the foetus and/or infant on its own, but we must take the mother and her psychic function as a unit, giving equal weight to the difficulties of the mother, keeping in mind the consequences they might have on the integrity of the unit.

3.2 Nature and nurture in prenatal life

There have been countless studies showing the correlation between maternal stress and trauma during pregnancy and physical illness (Sapolsky, Krey & McEwen, 1986; Lupien & Lepage, 2001). In the past two decades, neuropsychology has become interested on the effects of maternal stress and trauma for the foetus' psychic functioning and it has been documented that prenatal stress disrupts neurotransmitter activities, specifically; GABA, dopamine and serotonin, the main chemical players for emotion regulation, mood and anxiety (Huiznik, Mulder & Buitelaar, 2004). Some studies were also able to show that anxiety during pregnancy caused adverse emotional development for the future child, independent of confounding factors (Glover, 2016). There have also been many studies conducted with animals, that show prenatal stress and trauma have serious implications on the development of various parts of the brain, with severe consequences on emotional development and fear responses (Evertz et al., 2021). Additionally, serious effects on the HPA² were shown to be precipitated by maternal stress levels and it was seen that if the pregnancy was dominated by these feelings, poor emotion regulation is continued throughout life even if the conditions cease to exist (Lange, 2011). The same study showed that these rodents who were subject to prenatal stress showed an increase in adaptive responses to their environments and problem solving (Palleres et al., 2007). In line

² Hypothalamic-pituitary-adrenal axis is part of the endocrine system that regulates stress hormone levels and is shown to be closely linked to the neurobiological system that is shown to form attachment patterns.

with this thought, some studies have shown (Glover, 2016) that prenatal anxiety and stress predicted higher levels of anxiety in the future child but also higher levels of cognitive abilities. Evolutionary psychologists try to explain psychopathology, in line with the phenomenon of higher anxiety levels with higher cognitive abilities, by theorizing that the foetus starts getting ready for the dangers of the outside world and adapts and develops accordingly to stay alive.

Considering phantasies surrounding being a mother and unresolved internal conflict, it can be posed that these elements all have serious implications on the foetus because of genetic inheritance, intergenerational transmission of trauma and psychic conflict. A study comparing the effects of prenatal stress looked at two sets of women: one group who conceived with egg-donor IVF and the other group who conceived with their own eggs. It was seen that prenatal stress influenced both sets of foetuses negatively; there was a higher prevalence of behavioural problems in the children of the women who experienced prenatal stress. What was fascinating in this study was that the children who shared genes with their mother (mothers who conceived with their own eggs) had greater problems, giving us clues about the intergenerational transmission of some difficulties (Rice et al., 2010).

The conflict for survival in the womb is not merely a biological one, Goldman (2010) argues, but is a psychological one also. The hormones secreted by the mother and her psychophysical rhythms all affect the nervous system of the foetus and is perhaps later recognizable as the temperament of the infant which bares potential for future pathological development of the psyche (Ainsworth, 1978). Another important fact to note here is that the temperament of an infant has effect on how the child is handled by the caregivers postnatally (Ainsworth, 1978), bringing us to the tension between pre- and post-natal narrative. A ‘difficult’ infant may be the last straw that pushes a mother ‘over the edge’. She may respond in different ways; withdrawing from the baby or expressing her frustrations with retaliatory attacks, distinct from how she may have responded to the “easy” counterpart (Raphael-Leff, 1993, Music, 2017).

3.2.1. Journey in the womb

There is a genetic conflict during pregnancy and “seventy-five percent of human conceptions never come to term” (Haig, 1993, p. 507) because of it (Badcock, 2000). It is in the interest of the foetus to get transferred as much nutrition as possible to grow but this ‘occupation’ sometimes causes grave consequences to the mother’s physical health (Music, 2017). With its arrival, the foetus starts to take some control of the mother’s body, tapping into her blood and metabolic systems, much like a parasite (Haig, 1993) There is a complete unity between the two. In the benign form, a complete unity is necessary and adaptive for both parties but becomes pathological when there is a traumatic disruption, and the foetus has to “cling on” for survival.

Between 8-10 weeks the foetus begins moving in the amniotic sac, it is active and reactive. During this time, taste buds also develop, and foetuses show clear preferences for certain tastes like sweet opposed to bitter. Rudimentary self-awareness also starts after the first trimester when we see significant functioning develop in the brain (Piontelli, 1992). Around 16 weeks, the foetus starts to display facial expressions (López-Tejón et al., 2015), ultrasound images even showing expressions of crying in reaction to loud noises or maternal smoking (Bellieni, 2012; Gingras et al., 2005). It is fascinating to see the intricate interaction of nature and nurture after birth, where the infant shows less aversion to garlic if a mother consumes it during her pregnancy (Mennella et al., 2011). The foetus starts to become accustomed to the environment that awaits him. Another study showing this effect is where when auditory stimuli was placed towards the belly of a pregnant women, the foetuses of depressed mothers compared to their non-depressed counterparts, reacted less and calmed down slower (both as measured by their heart rates) when the stimuli was stopped (Dieter et al., 2008). The findings of this

study perhaps lets us speculate about the earliest beginnings to chronically anxious, depressed patients.

3.3 The “sounds-object” and the first establishment of me/not-me

It is known from neonatal studies that foetuses listen and react to their mother’s voice (De Casper & Spence, 1986). Maiello (1995) theorized that the mother’s voice is the first object that the foetus relates to and coined it the “sound-object”. She believed that understanding and searching for these auditory experiences were important because they give us links to prenatal sound memories (Maiello, 2013). This sound-object comes to be with the duality of its absence and presence and can be perceived as such because the foetus’ auditory senses are fully developed at 4 months. It is seen from ultra-sound images that some foetuses suck their thumb starting from the fourth month. Maiello (1995) pointed out that this might be a rudimentary ego function to relieve anxiety from the sound-object after the full development of the auditory senses. Here, we see the beginnings of some form of construction of me-ness (Isaacs, 1952). Between the absence and presence of the mother’s voice, the first separation between me and not-me is aided and the proto-object of the sound-object is introjected (Maiello, 1995). We can see evidence of ‘remembering’ and workings of these prenatal internal capacities by observing infants when they ‘hum’ themselves to sleep (Music, 2017) or their amazement at themselves upon hearing their own sound for the first time (Maiello, 2013).

After birth, this sound-object gets replaced by the breast, but this first object may enliven the foetus or may be death-giving and frightening. Clinical material derived from work with autistic children gives us great insight about primitive mental processes; Tustin (1986) argues that disruptions in these primitive processes present themselves as sensual and somatic pathologies where the child goes into an autistic retreat. It is seen in ultra-sounds that some

foetuses curl up to a corner of the womb during abortion, much like autistic withdrawal of the future infant (Salzberg-Wittenberg, 2013; Tustin, 1986). It is important to note here that Tustin's (1986) formulation of autism and its causes are very much outdated. The reason why her theory of autism has been discussed here is not to propose adverse foetal experiences as 'causing' autism but to think about how foetal experience, may manifest as infantile defence mechanisms after birth. Interpreting such behaviour, Piontelli (1992) theorizes that infants and children obsessively repeat experiences in the womb which they remember through bodily memories to master these negative adverse experiences. Perhaps these infants and later children don't 'remember' their intrauterine experiences in the traditional sense of the word, but these experiences seem to be remembered within their bodies as they are constantly repeated and re-experienced (Piontelli, 1992).

What can be said of a growth of personality and object relations during pregnancy, looking at the theories and evidence presented? According to Piontelli (1992) and Caron & Lopes (2017), it essential to study observations of twins in utero to start to find an answer to this question and to understand the intricacies of nature and nurture working more deeply together prenatally. Looking at these twins interacting with each other in the womb, kicking, punching, stroking each other, we may view behaviour as being reflective of early expressions of thought and emotion. The case for the growth of the self and object relations prenatally gains strength when we see that the quality of their relationship parallels that of what they had in the womb, in infancy and later childhood (Caron & Lopes, 2017, Piontelli, 1992).

3.4 Bodily memories and inborn preconceptions

As Freud (1923) stated "the ego is first and foremost a body ego" (p.27) and our bodily experiences and sensations make our first memories which knit the material of phantasy

(Isaacs, 1948). Looking at the findings in recent years (Glover, 2016; Huiznik, Mulder & Buitelaar, 2004; Maiello, 2001), it has been shown that foetuses have bodily experiences and sensations, and they start to form bodily memories intrauterine. As Isaacs (1948) argued, our phantasies are ever-present within our bodily impulses and are not built retrospectively, our previous experiences can be symbolized by putting our experiences into words. This fact, Isaacs (1948) argues, shows us that:

knowledge is inherent in bodily impulses as a vehicle of instinct, in the excitation of the organ... [t]he phantasy that his [the infant's] passionate impulses will destroy the breast does not require the infant to have actually seen objects eaten up and destroyed, and then to have come to the conclusion that he could do it too. This aim, this relation to the object, is inherent in the character and direction of the impulse itself, and in its related affects (p. 86-87).

It has been shown by attachment theory (Ainsworth, 1977; Bowlby, 1980) how receptive and observant infants are to external stimuli. But can we extend this knowledge to even earlier development, to the receptiveness of the foetus in the womb? As shown by the revolutionary works of Piontelli (1992) and Maiello (1995, 2001) using ultrasound imaging, we see that foetuses *react* to external stimuli and use their bodies to soothe anxiety (Maiello, 2001) and that these mechanisms are sometimes observed to be carried as behavioural patterns after birth (Piontelli, 1992). Keeping in mind the utility of phantasies and bodily experiences, we may perhaps start to argue that phantasies can start to be built in the womb, meaning these intrauterine experiences have real implications on our perception of the world. As is seen by ultrasound images, spontaneous movement starts around 6-7 weeks in pregnancy making us speculate about an independent will and feelings of the foetus (Piontelli, 1992). If there are

motor abilities which can be observed as reactions to the environment, we may possibly speculate about a me/not-me differentiation too, pointing us to this independent will. As is argued by Isaacs (1948), it does not necessarily matter that the infant, or in this case the foetus, cannot have a symbolic understanding of the knowledge he has acquired, the knowledge embedded in his body becomes the first vehicle to understand the world (Bessel van der Kolk, 2014).

Bion (1962) too formulated that infants are born with certain inborn dispositions, with certain expectations towards the breast. These preconceptions are of a need-fulfilling other, both in the physical *and* psychical sense. The infant seeks the object of the breast for fulfilment unless it has had negative experiences in the womb (Salzberger-Wittenberg, 2003). The preconceptions are turned to conceptions of the external world with an emotional experience of satisfaction whereas a preconception is turned to a thought with an emotional experience of frustration. Thinking arises when frustration is tolerated and with these links, the ego matures but if there is an inability to tolerate frustration, resulting from expectations of a bad object built in the womb, thoughts themselves are taken as literal objects: causing excess use of projective identification. With excess projective identification, objects are attacked, and links are annihilated. This process confuses the borders between self and other, killing two-ness, hindering sense of self and ego functions too. Anzieu (1985/2016) also defended that we are born with a rudimentary ego which develop in reaction to intrauterine experiences and that negative experiences in the intrauterine may cause future severe disturbances. On the same line, Maiello (1995) argued that the earlier psychic pain dates back, the more disturbed emotion regulation and object relationships will be. With such early traumas, there will be harsher attacks on links between phantasy, thought, image and the world, causing problems with symbolization.

Chapter 4: Intrauterine Adverse Experiences

It is a fearful thing to fall into the hands of the living God.

But it is a much more fearful thing to fall out of them.

D.H. Lawrence, 1932

Building on the points raised in the previous chapter about the possibility of experiencing and remembering in the womb, in this chapter the effects of prenatal adverse experiences for the developing foetus are discussed. First, the question of how foetuses experience and remember will be touched upon, with special emphasis on re-enactments of early adverse experiences and the conflicts of the mother. In addition, what we can define as adverse experiences in the womb will be examined. Secondly, the defences that the foetus equips itself with to counteract these adverse experiences will be explained, providing case studies to show how these experiences can be observed in the post-natal situation and how it predicts later psychopathology in the infant. Lastly, the effects of intergenerational family conflicts and how early adverse experiences of the mother might disturb the mother-foetus relationship, and the experience of the foetus will be shown.

4.1 Proto-experiences and bodily memories

Research has shown us how a pregnant woman's physical, mental and emotional health can influence the environment of her womb in a myriad of ways and researchers keep finding the primary role of the stress-related hormones that can permeate the placenta and seriously affect the growing foetus (Monticelli & Coveri, 2019). With the improvement of technology and different longitudinal studies on animals and humans (De Casper & Spence, 1986; Glover,

2016; Maiello, 1995), the study of foetal life gained new depths. In her research, Piontelli (1992) found that deeply troubling intrauterine experiences might lead to an active re-enactment of bodily memories to gain mastery over the painful memory of intrauterine experiences and psychic agony of it.

There is a striking continuity between the intrauterine and the post-natal life as observed by ultrasound images and psychoanalytically minded observers. This fact makes it possible to talk about the effect of negative experiences on the foetus and its potential for predicting later functioning or later pathology. As it was discussed in the previous chapter, foetuses can experience in the womb, and they ‘remember’ these experiences via bodily memories (Maiello, 1995). With advanced neural development and an ability to differentiate many external stimuli like sounds and tastes, foetuses clearly show ‘preferences’. The foetus can make early 'not-me' differentiations and register experiences through the mother. These differentiations are made through sensory experiences or neural and chemical routes like; stress-hormones that are transmitted through the umbilical cord or with changes to the foetus’ brain physiology due to negative experiences (Janus, 2021).

Starting from the womb, there is an interaction and entanglement of the physiological and psychological that make up the ‘self’. It is well-known and has been shown countless times that the mother's psychological states affect her physiology; the quality of the placenta, the amniotic fluid, hormones released, and much more which have direct implications on the foetus (Music, 2017). These interactions are the first clues into the workings of the psyche and soma of the mother and its effects on the soma of the infant. What about the psyche? Many studies have shown the adverse effects of stress, smoking, drinking, and taking drugs during pregnancy on the physical health of the foetus and later infant but what about the effects of mother's conscious and unconscious states, desires, thoughts, or conflicts on the infant's developing selfhood and personality?

A study in Austria conducted by Dr. Gerhard Rottman (1974) was one of the first empirical studies that showed a clear distinction between maternal mental states and its interaction with emotional disturbance in infancy. Rottman divided his sample of 141 pregnant women into four different groups: Ideal Mothers, Catastrophic Mothers, and 2 groups of Ambivalent mothers. Psychological tests determined that the ideal mothers desired their child both consciously and unconsciously while the catastrophic mothers did not desire their child in either category. The two groups of ambivalent mothers consisted of one set of women who outwardly seemed happy about her pregnancy but unconsciously were ambivalent about the pregnancy; the second group was outwardly ambivalent about the pregnancy because of reasons like having a demanding career or strained relationship but unconsciously very much desired their child.

Not surprisingly, the 'ideal' mothers had the easiest pregnancies, the least troubled birth, and the most physically and emotionally healthy infants whereas the 'catastrophic' mothers had the hardest pregnancies, the most troubled birth, and the most physically and emotionally disturbed infants. The data from the two ambivalent groups showed the fetuses incredible ability to 'read' their mothers' conscious and unconscious states of mind (Verny & Kelly, 1988). The infants of the mothers, who showed conscious levels of desire for the pregnancy but unconscious ambivalence, exhibited significantly high levels of behavioural and gastrointestinal problems from birth. On the other hand, the infants of the mothers who showed a lack of desire at a conscious level but a desire for the pregnancy at an unconscious level confused their infants with their mixed messages. When they were born, these infants had an apathetic disposition from the get-go and were lethargic babies.

The quality of intrauterine life may have a predictive role in how the original trauma of birth (Rank, 1924) and the consequent prototype anxieties will be handled throughout life. The predictive element is especially important because foetal experiences lay the foundations of the

future infant's conceptions of the world and its expectations of either being born into a safe or frightening one. Negative experiences in the womb leave the individual susceptible to anxiety and can be said to predict patterns of persecutory fears because, self-other differentiation cannot develop fully leaving the individual more vulnerable to persecutory delusions, psychosomatic illnesses and primitive defences (Piontelli, 1988; Winnicott, 1982).

4.2 Defining intrauterine adverse experiences

What can we constitute as being an adverse experience for the foetus? Reviewing the literature from an interdisciplinary lens of psychoanalysis, psychology, and genetics, we can define intrauterine adverse experiences as social stress, maternal psychopathology during pregnancy, unwanted pregnancy, abortive attempts, intergenerational family difficulties, or conflicts around unwanted pregnancy and relationship dissatisfaction.

Negative experiences in the womb leave the individual susceptible to anxiety and can be predictive of later fears ingrained in the psyche in the womb. Since an integrated self is yet to develop, the foetus is more vulnerable to effects from the external world, forcing him to *react* and develop pathological defences when prenatal experiences are adverse. These pathological defences later show themselves as re-enactments in infancy and early childhood if a professional does not intervene (Piontelli, 1988; Winnicott, 1982). As Verny and Kelly (1988) describe,

...it is important to point out that events affect us quite differently in the first stages of life. An adult, and to a lesser degree a child, has had time to develop defenses [sic] and responses. He can soften or deflect the impact of experience. An unborn child cannot. What affects him does so directly. That's why maternal emotions etch themselves so

deeply on his [the foetus'] psyche and why their tug remains so powerful in later life (p.25).

Since the foetus is, without escape, always in contact with the mother and her emotional state, his emotional and intellectual needs are more primitive and urgent than a child or adult's. As Verny & Kelly (1988) describe it, his state of experiencing, depending on when we pinpoint the start, is like being in a room alone for anywhere from six to nine months. If there is no emotional or intellectual stimulation, conflict is sure to follow the escape from this room. For example, studies on psychotic or schizophrenic pregnant women show us that, at birth, their infants showed significantly higher rates of physical and emotional problems. It is important to note that there have not been to date any chemicals found in the blood system of psychotic mothers that can cross the placental wall and affect the foetus (Evertz et al., 2021). The later pathology of these infants can be attributed to the chaos and/or silence that was present in the womb of these mentally disturbed women who were not capable of having a healthy relationship with their growing child (Verny & Kelly, 1998).

We are born with a primitive ego that develops in conversation with intrauterine experiences consequently; adverse experiences in the womb can cause disturbances in early emotional development. The earlier psychic pain dates back, the more severe will be the disturbances on ego development, affecting the foundations of emotion regulation, object relationships, and the creative processes of the individual that cause problems with symbolization (Maiello, 1995). The psyche experiences with the body since the integrated self is yet to be developed therefore the ego is more likely to resort to equipping itself with primitive sensory defences like dissociation and splitting when adversity arises because the borders of the self are yet to be defined (Bick, 1964: Cohen, 2017).

4.2.1. *The irresolvable tension between the pre- and post-natal situations*

The foetus adapts itself in the womb to stay alive in the expected frightening world, creating inborn dispositions, which are preconceptions of a need fulfilling other, both in the physical *and* psychical sense. These expectations create a vicious cycle where negative preconceptions will lead to negative interactions with the environment, which in turn may further traumatize the infant and hinder real object relationships, starting with the actual mother. The infant seeks the object of the need fulfilling other unless it has had negative experiences in the womb (Salzberger-Wittenberg, 2003).

Here, it is important to note that it is usually the case that adverse experiences in intrauterine life are present in the postnatal too. There is a dyadic relationship between the two, leading to even graver psychopathology. In addition, it is difficult to separate the *real* intrauterine experience and the *narrative* of it and is potentially an irresolvable tension. What the narrative of the intrauterine experience here is; the mother's subjective experience during pregnancy and her re-telling of her experiences and perceptions to the later child. This narrative for the subjective experience of the infant causes many problems.

The perception of the mother and her pregnancy experiences also affect the way that the mother treats her infant and later child. As discussed in the previous chapter, the physical and psychological conflict for survival in the womb affect the nervous system of the foetus through maternal hormones released which make up the later recognizable temperament of the infant (Goldman, 2010). Temperament has a huge impact on how the mother handles later interactions with her infant (Ainsworth, 1978). If the foetus had to adapt to adverse experiences in the womb creating problematic temperament, paired with the struggling mother, further pathology builds on top of hindered ego development. A 'difficult' infant may be the last straw that pushes a mother over the edge, and she might respond to this frustration in ways that prove further adversity to the infant, like withdrawal or outward aggression. Even if the same woman

is an anxious or uninterested mother after birth, she might have handled an "easy" baby much more differently (Music, 2017).

The infant and later child who grows up with the narrative of a mother telling him how hard the pregnancy was for his mother and all the hardships and conflicts that she went through will inadvertently construct his inner representation of himself as depleting and pain inflicting. The reality of not being wanted will negatively influence his sense of self. Adding onto the shaky foundation of difficulties in the womb, negative perceptions projected onto the infant are aftershocks on development that deepen negative internal representations of the self.

4.3 Defences in the womb

Ferenczi (1929) observed that children who were unwanted during pregnancy developed destructive and suicidal psychopathologies, fulfilling their parents' wishes. Negative experiences in the womb can affect the foetus and force them to adapt to the environment of the womb. This reaction for adaptation may hinder emotional development because of the defences that must be equipped. These defences lay potentials for future pathology in the postnatal world and alter how the future child will interact with its environment.

In extreme cases, the tug-of-war for survival during pregnancy makes way for a malignant fusion to remain alive (Farhi, 2010). This creates a limbo where the foetus clings even harder; creating a "space" where there is no room for differentiation or separateness because, in this context, separateness might mean both psychic *and* literal death. Following the foetal tug-of-war, the future child may develop an identification with the mother that is total psychic imitation (Ferenczi, 1919). Here, imitation "is used by the infantile organism to become what he lacks" (Gaddini, 1992, p. 125), the only way for survival is to give up individual existence and go into a state of *mutual parasitism* (Milner, 1969). In the benign

form, this complete unity is necessary and adaptive but becomes pathological when there is a traumatic disruption where foetus must 'cling on' for survival (Milner, 1969; Music, 2024)

4.3.1. Piontelli's clinic

It is seen from clinical examples (Milner, 1969; Farhi, 2003; Piontelli, 1992) that adverse intrauterine experiences have major effects on the psychic development of the foetus (Farhi, 2010; Hüther & Krens, 2005). As Piontelli (1988) observed in her clinical material, the future pathology and the defence mechanisms of the future infant are re-livings of adverse experiences in the womb. This re-living that may be experienced through symptoms, dreams, or hallucinations helps the future child to master frightening experiences in the womb, turning their passive stance inside to an active one outside of the womb (Freud, 1920).

Piontelli (1992) while investigating the relationship between pre- and post-natal life, shows the continuity of observable behaviour in these infants and makes an argument about the effect of intrauterine experiences on later pathological behaviour with compelling cases. I would like to discuss two of these cases to give a base for a stronger argument about the predictive element of intrauterine adverse experience.

The first case is about a boy called Jacob, who came to Piontelli at 18 months for psychotherapy. A restless child, Jacob showed obsessive behaviours from a very young age. After careful examination and interviews with the parents, Piontelli (1992) concluded that Jacob's behaviours were related to his experiences and proto memories of his womb life. Jacob first came to Piontelli with his parents complaining about his restlessness and inability to sleep. When she first saw him, Piontelli observed that Jacob seemed to be in an obsessive search within her consulting room, examining every corner and hidden crevasse of the room. When she commented on this, his parents replied that this was an example of his normal restlessness and that he was in this apparent search all the time.

Piontelli also noted that Jacob would often shake different objects in the room. Jacob's parents also commented that Jacob would have bouts of anxiety following developmental milestones such as crawling or walking. His parents described it as if he was afraid "to leave something behind" (Piontelli, 1992, p.17). Following her observations and the descriptions of the parents, Piontelli made a simple comment to Jacob which seemed to get his attention for the first time since he walked in. She said that "he seemed to be looking for something that he had lost and could not find anywhere" and continued that he was "trying to shake all the objects to life, as if he were afraid that their stillness meant death" (ibid, p.18). Jacob's parents burst into tears hearing Piontelli's interpretation, telling the analyst that Jacob had a twin in utero that had died. This meant that Jacob had to spend two weeks with his dead twin in utero before birth. For Jacob's presentation in the clinic, it seemed that he remembered the loss and horror he experienced with the death of his twin brother and was perhaps still repeating his fruitless efforts at trying to bring him back to life, even as a child.

The second case that gave us great material to show the effects of intrauterine adverse experience was that of Thomas. Thomas was an unwanted pregnancy conceived from a casual affair. Mrs. M (Thomas' mother) reported that Thomas was an immobile baby inside the womb, almost making no movements. She had to have caesarean at the end of the tenth month of pregnancy since Thomas was not coming out on his own. Mrs. M. brought in Thomas, after a series of doctor visits and a final diagnosis of autism. Thomas was first taken to a neurologist because he had virtually no motor abilities, he was not even able to sit up or crawl at 8 months. With all neurological tests coming back negative, he was taken to a psychologist who diagnosed him with autism. When he was brought to Piontelli, she did not agree with this diagnosis and started to conduct psychotherapy with him. Mrs. M. described him as an easy baby, who never cried and who never asked for anything. After a couple of sessions, Piontelli found out that Thomas had survived a series of DIY abortions, with various sharp objects like

needles and hangers. Piontelli was stunned to learn this fact because Thomas would hide into little corners of the room or the bin during their sessions, often stirring his hiding place with sharp objects like scissors. He would be very distressed when someone tried to take him away from his hiding space, screaming in agony. This agony was repeated at the end of therapy sessions. Reflecting on these cases, Piontelli (1992) came to the speculative conclusion that these two children were deeply troubled by their intrauterine experiences and were trying to re-enact these bodily memories to gain mastery over the painful memory and the psychic agony of it.

Disruptions in primitive ego development present themselves as sensual and somatic pathologies where the child goes into a defensive withdrawal for protection. For example, in ultra-sounds, we see that some foetuses curl up to a corner of the womb while attempts are made to abort it. This scene can be thought of as a base for the defensive withdrawal of the future infant (Salzberg-Wittenberg, 2013), bringing us back to Piontelli's (1992) aforementioned theory of re-living of adverse experiences and its purpose of mastery over negative foetal experiences.

4.4. Ghosts in the womb

Adverse experiences during pregnancy can have profound effects on the developing foetus but there is a reality that in every household and nursery, there are ghosts (Fraiberg et al., 1975) Questions arise, who are these ghosts? Are they malevolent? When does the haunting start?

In Fraiberg's (1975) theory, ghosts are the re-enactments of early scenes of a child who is now a parent. By ghosts, we are not referring to specific people or events but to unresolved conflicts of one's past, especially from early adverse experiences. They are emotions that

cannot be recalled consciously but are re-lived in behaviours, perceptions, and attitudes towards the now parent's child.

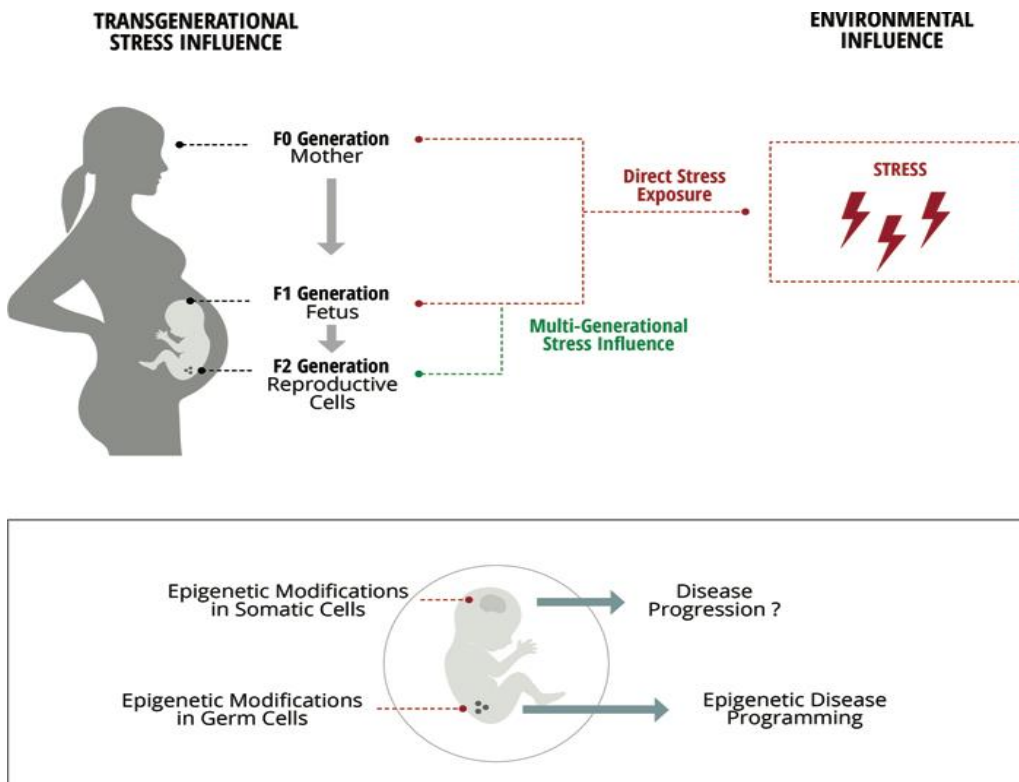
For Feder (1980), the haunting starts even before conception. There is the existence of a 'preconceptive stage' where a couple comes together bringing both of their cumulative histories together and onto each other. These cumulative histories include everything to do with their 'self', early experiences, phantasies, conflicts, and desires. These cumulative histories also have in them the stories of previous generations. Leading up to conception, in this preconceptive stage, the interwoven histories of the unit of the couple make up the pre-history of the foetus and later child. The fantasy created within the couple during this stage triggers a preconceptive ambivalence, which the quality will be determined according to what kind of phantasies or conflicts each side brings. We can see even in the myth of Oedipus, the tragedy started with Jocasta and Laius' curiosity and later fear of their foetus, fuelling their murderous attempt but eventually laying the ground for both their demise.

Rascovksy (1956) agrees with Feder on the subject of a pre-history of the individual that starts before birth, saying all our perceptions about the world originate from it. "Without a vision of the past we could not form an expectation of the future, as the latter constitutes a projection of the former" (p. 286), we use the 'perceptions' and 'memories' of the womb to navigate our early years which in turn influence the future.

How these cumulative traumas or conflicts are transmitted to the foetus was not known at the time of Feder or Rascovksy's writing, and their theories remained speculative until the last couple of years when breakthroughs in the field of epigenetics and prenatal psychology were achieved. These studies show us that stress or trauma can be transmitted at a genetic level, backing up the newfound evidence from epigenetics that environmental influences can affect the next generation by 'turning on' some genetic potentials (Music, 2017, 2024; Hoover & Gerlinde, 2021). In figure 2, we can see how direct stress (here-and-now adversity) affects the

foetus' brain, making cell modifications and how this direct stress also affects the reproductive cells of the foetus, showing how the effects of stress and trauma in previous generations are carried onto future ones.

Figure 2



Reprinted from Transgenerational Consequences of Perinatal Experiences: Programming of Health and Disease from Mother to Child and Subsequent Generations (p.64), by T. Hoover & G. Metz, in Handbook of Prenatal and Perinatal Psychology: Integrating Research and Practice. Springer Books. Copyright 2021 by Klaus Evertz, Ludwig Janus and Rupert Linder

What neurologists and neuro-psychoanalysts who study personality disorders and their correlation with prenatal life are finding is that, much like in the early months after birth, the foetus' brain is very susceptible to outside influence and the experiences of mothers is the number one influence on the brain and the nervous system (Hoover & Metz, 2021). In addition

to the widely studied and known negative effects of maternal smoking, alcohol consumption, and intake of recreational drugs, maternal *social stress* can cause the miswiring of neural cells. Especially social stress decreases the length of cell dendrites, which means that the child will be born with less potential to learn and explore after birth, again highlighting the interaction between the pre- and post-natal environment and the way that the intrauterine environment influences the post-natal environment. Maternal stress also decreases serotonin levels in the foetal brain, laying the ground for future depressive potentials, and overcharges the autonomic nervous system laying the ground for future anxiety problems (Verny, 2021).

It is interesting to see that according to the predictive-adaptive response model (Sandman et al., 2012) that congruence between the pre- and post-natal life are important to the adaptation of the infant to the world and that even if the pre and post-natal life is stressful/traumatic, it bears an adaptive advantage for the infant, infant who had non-congruent pre/post-natal situations (depressed mother in prenatal life vs. non depressed in postnatal) was less functional in the 1st year of life. The foetus gets ready to the world he will be born into and functions better if he finds what he is expecting, for good or bad.

Chapter 5: The Birth Experience and First Months of Life

5.1 The Physical Birth

Birth can be regarded as the climax of prenatal life and experience (Piontelli, 1992) and each individual family reacts differently to it in line with their in-built predispositions. The conflicts, phantasies and experiences that had been building up during pregnancy and negotiated in the psyche of the pregnant woman or with her environment now is embodied, it becomes an external *reality* with the physical birth of her baby. There is only one certainty, what was in, must come out. How will the mother's phantasies meet the physical reality of a new-born baby? Will her expectations be met, and the mother-infant duo can continue right where they left off? Or will there be disappointment, with how different the real baby is than the imagined one? How will the defences that the mother equipped herself with hold?

If the woman is in a couple, the two-person relationship now becomes a three person one now, with a *visible* triangle that bears within it, its own dynamics, and complications that the mother and couple must work through. Will there be problems of exclusion, of competition or loss (Waddell, 2019)?

5.1.1. Fears and Fantasies Surrounding Childbirth

With birth, there is no more a possibility of a total retreat into phantasy or denial of reality (except of course in extreme cases of psychosis). Fears around the birth itself, for most mothers, start to crop up in the third trimester. How painful will it be? Will there be complications? Will everything go according to the birthing plan? How will *I* do, will I be

strong enough to give birth? Will me and my baby survive this undeniably difficult event? These are just some of the questions that plague a pregnant women's mind about the undeniably momentous task of giving birth (Missioner, 2018).

After a successful birth, there is now a living and breathing baby who cries, urinates, defecates, and gets ill. There is now a baby that is no longer in absolute control of the mother's body and separateness is pronounced. It is not only the physical realities of birth or the fears around the birth itself that arise fear in the mother but also fear may arise due to more primitive anxieties and phantasies that the mother may hold about herself and her baby. If the mother has a negative image of herself, there may be fears about a 'beast' baby coming out, exposing to the world the mother's inherent 'badness'. The pregnant women's body is like Pandora's box, or a ticking time bomb, with all the evils it may cast out once opened (Raphael-Leff, 1991).

During pregnancy, a common meaning given to the growing foetus and subsequent baby is that of a wish of renewal and self-fulfilment. These feelings make it all the more complicated when something goes wrong with the pregnancy, developing foetus, birth or the infant. If there is an issue with the pregnancy, birth, or a birth defect with the infant, it can be perceived as a mistake or even failure on the part of the mother, creating intense guilt or it may be experienced as a narcissistic injury, affecting self-esteem (Mintzer et. al, 2003). The negative impact on self-esteem may also affect parenting, leading to depression and/or withdrawal from the infant to distance themselves from the 'bad' of their baby. A needed accomplishment here is the need to separate the self from the infant, to experience it as a separate being rather than an extension of the mother/parent (Bibring et al., 1961).

5.1.2. The physical realities of birth and meanings given to it

With birth, there is finally the opportunity to meet the baby who has been growing inside the mother for the last 9 months, but this opportunity also signals a loss. The birth itself

too, with the physical and medical realities of it, can be very traumatic for the mother and may affect the way she interacts with her child (Waddell, 2019). So, it is not only the psychic meaning given to this momentous event but also *the external reality of birth* can cloud the experience of and perception towards the infant. A traumatic and complicated birth experience can erase 9 months of blissful harmony, or it may further damage an already conflictual relationship between mother and foetus.

Even if it is not experienced as traumatic, birth may be experienced as a loss of identity or for some women, it may feel like the loss of a limb, the loss of a part of the mother (Rabuzzi, 1994). How she envisioned giving birth pinned against the reality of the birthing experience can have a direct effect on this sense of loss with the incongruence between fantasy and reality making some women feel out of control and deepening their sense of loss. Some women feel like a failure if they cannot give vaginal birth, feeling weak and unable to achieve what many others have done before her, maybe her mother and sister too, deepening her sense of inadequacy and becoming the loser of the sibling rivalry. For other women, caesarean section is experienced as a positive event, with their perception of no longer having all the responsibility of having to bring her baby to the world, welcoming the help of medical professionals (Raphael-Leff, 1993).

Much like pregnancy here, how the mother imagines the birthing experience gains the utmost importance. A lot of effort, preparation, antenatal classes, and investment is put into the birthing experience. It can even be considered like a rite of passage for the pregnant woman or a sacred event. The cultural context and the rituals around birthing is also of great significance here in determining the choices the pregnant woman might take. What is perhaps most important and has the greatest effect on how the pregnant women experiences the birth is if there is an incongruence between what she planned and what *actually* happens. For example, a woman who has an elective caesarean section versus a woman who is *forced* to have one after

hours of painful labour with a failure to give birth, may experience what the medical procedure was like and what it means that she was not able to separate 'naturally' from her foetus differently (Tracey et al., 1995). Another complicating factor with caesarean sections is the need for aftercare following major abdominal surgery. Most women bounce back quite quickly following vaginal birth, sometimes within hours, but with caesarean section the mothers are usually in pain for an extended period of time and must be the one receiving care, much like their new-born babies. This might cause complications in the psyche of the women, together with the restrictions imposed on them following major surgery (Raphael-Leff, 1993).

We cannot know for sure how the foetus/infant experiences the birth, but we do have clues in the infant's early functioning, reactions towards the external world and later psychopathology about how birth might have affected them and if it is remembered. Rank (1924) famously said that we spend our whole lives trying to recover from the trauma of birth and being separated from the peaceful womb, but some foetuses may experience 'escaping' the disturbing womb as a relief (Salberger-Wittenberg, 2013).

What is observed to be challenging for the foetus/infant is the discontinuity that is felt in the world outside of the womb. After the hours of labour or perhaps being yanked out of the womb with caesarean section, the foetus/infant is met with a foreign world. It is no longer floating in the warm liquid of the amniotic fluid but is in the space of the external world of bright lights. This transition takes time to adjust for the infant although even from the first hours or days of life, we see the amazing adaptive abilities of the infant. Some hospitals also have protocols in place to minimise the trauma felt in this transition where midwives will dim the lights, put the infant on the mother's stomach before the cord is cut or immerse the infant in a warm bath to help him continue his experience of the first 9 months (Salzberger-Wittenberg, 2013; Waddell, 2019).

Later in life within the clinic either with children or adults, we see echoes of the birth experiences. For example, an infant who was stuck in the birthing canal may show signs of claustrophobic anxiety or if the birth was very quick and the separation abrupt, this might manifest in a melancholic state where the individual feels a painful loss and sadness towards all separations (Piontelli, 1992; Salzberger-Wittenberg, 2013). The birth becomes a part of the fabric that builds up the emotional world of the individual, starting with the prenatal experiences and continuing with the early days and months of life.

5.2 The Psychological Birth

Separating from the emotional dependence felt towards our mother is a lifelong quest that we struggle with (Mahler, 1963). Separating physically during birth is only the beginning of this story and much more development and effort is needed for this psychic separation. In their book, Mahler, Pine and Bergman (1975) spoke in detail about the difference between the physical and psychological birth. They contended that,

The biological birth of the human infant and the psychological birth of the individual are not coincident in time. The former is a dramatic, observable, and well-circumscribed event; the latter a slowly unfolding intrapsychic process... Like any intrapsychic process, this one reverberates throughout the life cycle. It is never finished; it remains always active; new phases of the life cycle see new derivatives of the earliest processes still at work. But the principal psychological achievements of this process take place in the period from about the fourth or fifth month to the thirtieth or thirty-sixth month, a period we refer to as the separation-individuation phase. (p. 3).

This separation process and the psychological birth is essential to the building of a sense of self apart from others (Mahler et al., 1975). Many psychoanalysts have talked about this period in development starting from 4-6 months of age and the implications of it. Waddell (2019) argues that the anxieties and feelings that arise during this time date back to the earliest times of development and have consequences throughout life because it lays the prototype for all later separations and starts to build a capacity to mourn, belonging to the fact and realms of birth and death.

The context of the mother and her capacity for adaptation or attunement is hugely influential whether this period is experienced as normal or traumatic (Mahler, 1963). As described by Winnicott (1953), this period coincides with the establishment of a transitional space too which, through the illusion created by the mother-infant unit, helps the emergence of me/not-me or the start of separation which will be worked through their lifespan. How the infant handles these processes of separation and disillusionment show the beginnings of its own inner capacities (Music, 2017). It is important to note at this point that what is meant as separateness here is as a separated intrapsychic representation of the self from the representations of objects (Jacobson, 1964).

For Mahler, the normal autistic/symbiotic phase before separation was a time of blissful unawareness and floating through the world where the self was built through social interactions with the environment over time, but Stern (1985) added onto this notion that the infant had a sense of emergent self, starting from when it is born. In this emergent self which corresponds to the first 2 months of life, the infant has an implicit sense of self that is *presocial* and where the infant gets a sense of himself through integration, or yoking as Stern called it, of sensorimotor experiences like sight, hearing, and smell (Rochat, 2010). This presocial ability at integration might give us some clues to the abilities the infant is born with, which might

develop prenatally. Disruptions during this time might be linked to psychotic disorders according to Stern (1985), with a disruption to the most basic understanding of the world.

Between 2-5 months, the infant begins to create a sense of a core self (Stern, 1985) in which he starts to get an idea of his own features and bodily limits, now also developing a more sophisticated ability of integration which helps in creation of episodic memories. At around 7 months, the infant starts to develop a sense of a subjective self (Stern, 1985) which brings the awareness that the infant's emotions, thoughts, and experiences might be separate from the other. This awareness lets the infant have intersubjective experiences.

What both Mahler and Stern's theories agree on is that somewhere between 5-7 months, the infant starts to gain more bodily autonomy and becomes less dependent on and less compliant and passive towards the mother. In normal development, this autonomy is precipitated by both the development of motor skills that enable the infant to be physically autonomous from the mother and the start of an emotional awareness that he is different from the mother, both in the physical sense of bodily boundaries and emotionally with the understanding that others might have different *experiences*. This is not as sophisticated as theory of mind yet but a very basic understanding that the other might be a *subject* (Meltzoff, 2002).

Mothers who have had adverse experiences in their own mothering or have had a pregnancy which has been riddled with adverse experiences like having a miscarriage or questions around the viability of the pregnancy, might have difficulty negotiating her infant's newfound autonomy and how to process their separateness once again after the birth. This might manifest in different ways like anxiety about the infant's attempts at autonomy and exploration, leading to rigid control or a failure to set appropriate limits for her infant (Salzberger-Wittenberg, 2013). The swing between the two, in the former extreme, might cause guilt in the mother or cause anger with the inability to control her infant. This difficulty and

conflict between these two stances of mothering usually comes from trying to change the narrative of harsh, punitive mothering that she might have experienced but without having the appropriate emotional experiences or capacity to provide an alternative model, there is repetition (Chatoor, 1989). The subsequent back and forth can cause misattunements in the relationship between mother-infant with the mother missing verbal cues about what the infant needs. This difficulty will be especially prevalent in eating but also play. Chatoor (1989) discusses that we see this dynamic with children who experience infantile anorexia nervosa.

The abovementioned theories and findings show us why the 6-month mark is such an important time in assessing the emotional development of the infant and how it might relate back to the prenatal period. Mothers who have conflicts around separation and autonomy will have issues around this time, just like they might have had during birth and with pregnancy too, while trying to re-negotiate their identity and reverting back to an identification with their foetal/child-self. The themes around weaning/separation-individuation/sense of subjective-self, depending on what developmental theory we take to name this period, closely mirror the central themes of the second trimester of pregnancy with the difficulties that the mother might experience during this time.

Another important reason to look at the 6-month benchmark for development is due to the child's developed physical ability to explore the external world through movement, in normal development. Seeing how a child interacts and moves in his external environment is important to infer what kind of model he might have about the world, whether he experiences it as being safe or frightening. An infant who might believe a frightening world is awaiting them, either because of prenatal experiences, experiences he has had in his first months of life or a mixture between the two will not venture out into the world confidently, not exploring the world or his bodily limits. As Bion (1962) has observed, the reason why an infant might go on this adventure to explore the unknown is the belief that there is goodness in the world,

something life-giving and enriching. Bion (as cited in Salzberger-Wittenberg, 2013) went onto remark that the infant is born with a preconception of how the world is. This preconception might affect how the infant interacts with its environment in his early days, which would create a tension between the pre- and post-natal world. If the preconception of the infant is frightening, we would expect to see echoes of this in his inability to explore or apathy towards the external world which would become apparent around the 6-month mark with thy physical ability to explore if he desires.

Chapter 6: Methodology

In this chapter, I will outline the research questions I have asked, followed by descriptions of the methodology which was devised to tackle these questions and why I have chosen to use the instruments, procedures, and analyses that I have done. This thesis explores the relationship between maternal phantasies and perceptions during pregnancy and the later emotional development of the infant and how infants' 'experiences' and 'memories' of their prenatal life might colour their relationship with their mother and early interactions with the external world.

The investigation into these research questions was done in two separate domains of empirical study. Firstly, semi-structured interviews were conducted with five pregnant women followed by infant observations when their babies were born and were 6 months old. This chapter is separated into 5 subsections of, participants, instruments and procedure, data analysis, ontology and epistemology and ethical considerations.

6.1 Participants

A total number of five women were recruited for the study. These women were found through fliers (Appendix A) posted online on social media platforms like Facebook, Instagram, and LinkedIn through University of Essex's Post Graduate Research and Department of Psychosocial and Psychoanalytic Studies' social media accounts. Facebook was an especially important recruitment platform as the fliers were posted by me on multiple "pregnancy and mother support" groups around the U.K. and Turkey (where I am originally from), after getting the consent of these groups' admins. There were also physical fliers hung in multiple settings

like the university campus and nurseries although no mothers that got in touch with me through this medium continued with the study.

Before any formal part of the research began, I as the lead researcher corresponded with the participants over email to answer any questions they had. The participants would get in touch with me first via email to show interest in the possibility in taking part. After this initial contact, if the participant was still happy to go forward, I would send them the Participant Information Sheet (Appendix B) and the Consent Form (Appendix C). Only after both forms were read and signed would the date for the interviews be set.

The participants came from a variety of cultural backgrounds but there was a clear homogeneity in their professions and education, possibly due to the method of participant recruitment. Almost all participants who decided to go through with the study after the initial contact were recruited from the university's research social accounts which reached a certain demographic of highly educated individuals in specific professions. All the names and identifying details of participants have been changed and/or anonymised to protect their confidentiality.

6.2 Instruments and Procedure

There were two different legs to the empirical research in which two different methods of inquiry were used.

6.2.1. Semi structured interviews as an instrument

In the first leg of the research, semi-structured interviews were held with the participants which lasted anywhere from one to two hours depending on the length of answers given by the participants. These interviews hoped to capture the mothers' unconscious phantasies, fears, and feelings during pregnancy. The open-ended questions of the semi-

structured interviews were devised by me and my principal supervisor, Arianna Pulsoni. There were five different topics which were hypothesised to be important for the research which the open-ended interview questions were devised around:

- Question set about the mother's past experiences, childhood, and her parents,
- Question set about their partner (or lack thereof),
- Question set about how they feel about children in general before they got pregnant,
- If they already have kids, question set around how they experienced their previous pregnancy and first-time mothering,
- Question set about their current pregnancy.

The interviews were started with me introducing myself and asking if the participant had any questions. I tried to build rapport with the participant in this part of the interview, asking them to talk about themselves before moving onto the question sets. I tried to follow the free associations and flow of the responses of the participants and did not follow a particular order to which question set we started with. If any topic was unanswered upon explicit questioning, I would try to reframe my wording to invite us to think about it together and if defensiveness was detected again, I would move onto another topic, taking the omission and defensiveness as meaningful. The shortest interview was about 50 minutes, with the longest interview being near 2 hours.

After the interviews were finished, I informed the participants that I would get in contact with them a month before I estimated their baby to be 6 months old, which would be when we would start the infant observations as stated on the Participant Information Sheet. I declared that they could still withdraw from the study at any time without giving reason. I also

declared that if they wished to do so, I would be happy to hear that they had a healthy delivery. Two of the five participants emailed me to give me the good news of a healthy delivery.

6.2.2. Reasoning behind choosing semi-structured interviews as an instrument

Semi-structured qualitative interviews were chosen as the method of inquiry because they have the different advantages of both unstructured and structured interviews. Semi-structured qualitative interviews provide more freedom than structured interviews because there is more space for the interviewer to ask for clarification and there is room for exploration into themes that may be discovered within the interview. Also, the less formal environment provided by the semi-structured qualitative interview creates less stress on the interviewee which might help them express and help the interviewer capture their experience and meaning (Cohen & Crabtree, 2006).

The interviews were decided to be conducted when the mothers chosen were at the second trimester of their pregnancy to ensure that the uncertainty and anxieties which typically concern the first trimester of pregnancy (Raphael-Leff, 1993) won't contaminate the unique individual anxieties and phantasies of the mothers-to-be. In the first trimester of pregnancy, there are many uncertainties about the foetus, even an uncertainty surrounding the very existence of it. The first trimester of pregnancy is also associated with many physical disturbances such as morning sickness and fatigue (Salzberger-Wittenberg, 2003) which might again contaminate the individual psychical meaning given to physical well-being. Additionally, many mothers, at this stage of pregnancy, do not tell friends and family about the pregnancy and if the interviews are conducted at this stage, the cultural/social context of pregnancy and its meaning for the mother might have been missed. In the second trimester, there is more of a 'sense' of the baby inside the mother along with the physical changes that accompany it (Stern, 1998). While conducting the interviews, the participants' experience of the first trimester of

the pregnancy was also enquired to gain insight about this important step of pregnancy which might affect the subsequent two trimesters and the mother's perception of her baby.

6.2.3. Infant observations as an instrument

In the second leg of the empirical research, the now born babies of the pregnant women interviewed were observed for 10 weeks, starting when these babies were 6 months old. The method of infant observation devised by Ester Bick (1964) was chosen as the instrument of investigation due to its reliability of drawing the researcher into the naturalistic setting of the family home to observe their everyday-functioning and also due to the fact that it is the only method of investigation where the development and the emerging personality of a baby can be observed at such great detail (Rustin, 2006; Rustin, 2022).

Traditionally, an infant observation will be carried out until the child's second birthday, starting as close to the birth as possible with a meeting with the parents before birth (Bick, 1996; Miller, 1989). The meetings will be set once a week for an hour, on the same day and time to ensure maximum consistency of the environment and to be able to observe the same routine of mother-infant to help with the emergence of patterns. For the present research, the infant observations were held once a week for an hour, on the same day and time but for 10 weeks. The infant observations were carried out with attendance to weekly infant observation seminars. The divergence from the classical frame of infant observation is considered as a limitation which is discussed in more detail in Chapter 9. Despite the possible limitation of this divergence, different models of conducting infant observation have been shown to produce valuable data for research (Urwin, 2007; Urwin & Sternberg, 2012). In its 7 years of running, the Infant Observation module (my principal supervisor Arianna Pulsoni leads this module) in University of Essex's *Childhood Studies* programme, which requires second year undergraduate students to conduct 10-week infant observations alongside weekly infant

observation seminars, has shown the 10-week model's potential for gathering reliable data to make inferences about the internal world of infants.

In addition to the 10-week format, a big divergence from the 'classic' format of the Bick/Tavistock method of infant observation was with observations being held online on the Zoom platform, due to the Covid-19 pandemic. Although the neutral role of the observer can have a containing value for the mother (Rustin, 2006), the presence of the camera was sometimes seen to disturb this dynamic for many of the mothers observed. The presence of the screen and the meaning given to it by each mother and infant differed according to the mother's own personal history and content of her projections; it was apparent that the online setting of observation brought to surface many different dynamics and sometimes conflicts. This is regarded as a limitation within the methodology, due to the augmentation to the 'natural' environment but, this reality also at times proved to add many rich layers to the content of the observations with the dynamics it triggered. These will be explored in length in Chapters 8 and 9.

The start of the observations was taken as 6 months to coincide with the weaning period, expected to start between 6-7 months of age (Houzel, 2001). Weaning is an important milestone in any infant's development and can be a conflict to be overcome for the mother-infant duo. It can be formulated as the second separation from the mother (1st being the birth itself), and an important step for individuation from the mother, both physically and psychically (Winnicott, 1982). Weaning and the subsequent separation can also be difficult for some mothers, depending on their internal representations about togetherness-separateness. Due to the limited time to observe these infants, the weaning period was chosen as it was predicted that similar themes and conflicts that were present in pregnancy may be revived, giving us a unique window to observe the relationship between pre- and post-natal life.

Before the infant observations were started, an additional informal meeting was held with all the mothers to get a sense of how they had been since the interview. This meeting was treated as an informal, unstructured interview where minimal questions were asked. The only prompt that was given to the mothers was a question about how their third trimester, birth and first couple of months of mothering had been. The free association of the mothers were followed, and these meetings lasted around 30 minutes for each mother. This meeting was also the first time where I met all babies with all the mothers showing their infant to me unprompted.

6.2.4. Reasoning behind choosing Infant Observation as an instrument

The method of infant observation gets its strength from its qualitative, interpretative, and intensive nature (Rustin, 1989b, 2006). The infant is seen at a regular time and place at the natural setting of the home of the baby. This creates a strong sampling procedure as the same things can be observed every week, helping the emergence of patterns. No notes are taken during the observation to ensure that the observer can pay attention to the smallest of details. Detailed notes are taken as soon as possible after the observation is finished, in plain everyday language, to make sure that theory does not impose on the observation and to help the observer be open to the experiences of the observation (Rustin, 1989b). What becomes important here is the openness and reflectivity of the observer, being able to make sense of the non-verbal material that provides clues to the infant's emerging self and unconscious, hidden in the play, body, and movements of the infant and the quality of his interaction with his mother.

The method of infant observation was chosen as one of the two main tools in answering the research question due to importance given to discovery within this methodology and its attention to detail. Knowledge generation about the beginnings of the psyche and the effects of prenatal life, may best be discovered by observing the infant (Harris, 1987; Rustin, 1989a). The questions I aimed to explore have not been discussed in length from a psychoanalytic lens and

there is a gap in literature with there being little empirical data on the subject. I believe this project will greatly enrich the little theory that exists. The nature of infant observation fits this gap and can aid in the process of discovery of prenatal experience, adding to the previous understandings of the subject.

The unique stance of the participant observer in infant observation, using emotions as a tool, is needed because a large part of the subject matter, the experience of the infants, cannot be expressed verbally so, a human perceptual instrument, a close monitoring of observer/researcher's emotions is needed to understand it (Miller, 1989, Rustin, 1989b, 2002, 2006). We have seen the usefulness and accuracy of using emotions as tools as validated by micro-analyses of infant-mother interactions as predicted by the countertransference³ (de Rementeria, 2021). The technique of using our emotions as tools is shaped by in-depth training, reflexivity, and supervision/seminars. The fact that I as the researcher/observer have a training in psychodynamic psychotherapy (and still am a practicing psychotherapist) and that I have gone through and finished my personal psychoanalysis support my capacity to use my emotional responses reliably and reflexively. These facts on their own are not enough to ensure the integrity and reliability of the research data and other methods of triangulation (Britton, 2004) and practicing reflexively have been sustained throughout data collection and analysis.

6.2.5. Reflexivity

In psychoanalytic and psychosocial methods of research, like the study at hand, reflexivity is an integral part of the way research is conducted and that data is produced and understood. Reflexivity here is understood as the researcher's capacity for critical self-

³ This was seen in a fascinating presentation where Beatrice Beebe showed videoclips of mother-infant interactions and asked the attendees at the Association of Infant Mental Health (UK) symposium what they felt they had seen. The attendees were correctly able to identify the frustration in mothers' face which was only obvious to the eye when micro-analysis was made by Beebe. As de Rementeria (2021) put it, "we could not have consciously registered what the video technology revealed but our countertransference had picked up something of what was going wrong" (p.130).

awareness and having a suspicious approach to their own assumptions (Clarke & Hogget, 2009; Frosh, 2003). It requires the researcher to be aware of and engage with that they bring to the research process: how the study is built, how engagement with participants is achieved and how difference between the researcher and participants—like race, class, culture, gender—may have an impact on how the researcher interprets their findings (Frosh & Baraitser, 2008, p.359). The researcher's subjectivity will inevitably shape the knowledge that is produced. This means that the researcher has an ethical duty to engage in sustained reflexivity to try and understand her impact. The integrity and reliability of such methods of research, depend on the researcher's ability to engage in critical self-awareness and their use of various feedback loops and check-and-balances while interpreting and analysing their data (Frosh, 2003; Frosh & Baraitser, 2008).

Such a stance is especially important while using a research method like infant observation, where the emotional responses of the researcher/observer are used as data points and tools. This way of doing research, means that the data produced by infant observation—but also the semi-structured interviews—are co-produced and co-constructed between the participant and the researcher (Hollway, 2007, 2012).

In this study, reflexivity was maintained through several strategies: the keeping of a reflective diary while both interviews and infant observations were conducted, to document emotional responses, regular supervision, attendance to weekly infant observation seminars where observations were discussed with peers and the seminar leader, and the presentation of findings in study groups and conferences. These strategies helped provide close scrutiny to my emotional responses and emerging interpretations of the data (Clarke & Hoggett, 2009).

Despite these strategies, reflexivity does have its limitations. Frosh (2003) warns of the risk of over-identification where the researcher's subjectivity may overshadow the participants' voices. A further limitation lies in the nature of unconscious processes which cannot be fully

accessed or controlled. As a result, interpretations of unconscious and countertransference phenomenon, remain speculative and partial. Nevertheless, reflexivity remains central to this study's methodology as it helps capture emotional complexity and inter-subjectivity.

6.2.6. Infant observation as a research method

There have been significant developments in how and why infant observation is done and used for, since it was conceived by Bick (1964). It is no longer used solely as a part of a psychoanalytic training for clinicians needing to learn certain skills by practice, and to better understand infantile states of mind. Infant observation can be seen as a method of knowledge generation with research; to discover novel concepts or explore and expand upon pre-established ones. The frame of infant observation, and observational studies in more general, has been exploded and varies greatly, ranging from one-off observations of infants for a specific purpose, to therapeutic observational studies to observations of organisational settings, like in nurseries (Rustin, 2022; Shallcross, 2014).

Using infant observation as a method of research and as a way of contributing to our knowledge generation, has come from the work of child and adolescent psychotherapists and researchers of child development. We can argue that Klein (1956) and Winnicott (1951) were using the *method* of infant observation, to explore some of their most ground-breaking concepts. Even the founder of infant observation, Esther Bick, who was a fierce defender of the purpose and use of it, developed from her observations of infants one of her most seminal theories, that of the function of the skin for infants (Bick, 1968).

This interest and use of infant observation has only grown with the founding of the journal, *International Journal of Infant Observation*, helping clinicians and researchers from around the globe to participate in knowledge generation and dialogue using infant observation together. It is important to mention, Professor Michael Rustin, who has been teaching and

promoting infant observations as a method of research for almost four decades and has written many publications in defence of it (Rustin, 1989, 2006, 2011, 2019). There have been fascinating studies using infant observation as a method of research which have put more emphasis on discovery rather than just observation, leading to theoretical breakthroughs. The works of Caron & Lopes (2017), Maiello (1995), Piontelli (1992), Reid (1997), and Shallcross (2012), just to name a few, have all conducted detailed analyses of infant observation to discover and describe novel concepts (Rustin, 2022). Maiello's (1995) research using infant observation is of note here, as she has used infant observation together with ultrasound imaging to observe foetuses intrauterine. With this 'not-traditional' method of infant observation, Maiello was able to look at intrauterine life and come to the careful conclusion that foetuses may be influenced by their life in the womb, that can lay the primary foundation of mental life outside the womb (Cavalli, 2009).

Following this brief description on how infant observation has evolved since its founding and that it has been used as a research method, not just an educational tool for future clinicians, I would like to address some controversies in infant observation and how these have been addressed to defend the Bick/Tavistock model of infant observation's position as a research method.

There are different assumptions about the 'reality' of infants' experience, ranging from our supposed ability to concretely capture knowledge about these experiences to every claim about infants being relative and to a certain extent, socially produced through the observer's interpretative processes or by wider social discourses (Price & Cooper, 2012; Urwin & Sternberg, 2012). Stern (2000) was a fierce believer that experimental, developmental research should support our clinical understanding of infancy and infantile states which has a big role in informing psychoanalytic thinking. Of course, the method of infant observation Stern used for his research was quite different from the Bick/Tavistock method of doing infant observation

as it relied on micro-analyses of film to analyse mother-infant communication (Beebe, 2017). Green (2000) argued against Stern's position and the value of infant observation research for furthering psychoanalytic knowledge, writing that such methods of observational research have little information to help us understand the infant life of the patient and that this information emerges in the transference situation.

Steven Groarke (2008) has also been critical of infant observation's value beyond being an educational tool for training clinicians, defending Green's position and has been critical of Michael Rustin's views on the value of infant observation as a method of research. Groarke (2008) asserts that infant observation lacks the tools for validating information gathered from observation and that infant observation cannot contribute to psychoanalytic knowledge and should not be used as a method of research. It is true that infant observation lacks the co-construction of knowledge that belongs to the psychoanalytic clinic and that it cannot 'test-out' its hypotheses and validate it by interpretation but it may develop a separate field of knowledge (Rustin, 2011).

Of course, the 'type' of research method Green (2000) was arguing as not being suitable for psychoanalytic knowledge generation was that of a laboratory based and experimental models of infant observations used by the likes of Stern (1971, 1985, 2000) and Beebe & Lachmann (2002, 2014, 2017). This type of infant observation is still commonly used by developmental psychologists and attachment theory researchers (Music, 2012). These types of infant observation as a research method, although in principle taking the mode of observation as a method of research, are quite different in the validation of their findings via multiple people being able to 'observe' the same mother-infant interacting and in the way they give more definitive answers to more specific questions raised by their hypotheses that are being tested. This ability of multiple researchers observing the same mother-infant also adds to the reliability of the data set with inter-rater reliability. This combination of validity and reliability helps

findings of said types of research be more generalisable like the findings of research from more positivistic sciences and quantitative methods.

As discussed above, these experimental methods of infant observation have many strengths, especially in the way that their findings can start a conversation with different scientific fields which increases their area of influence. Using the qualitative and exploratory Bick/Tavistock method of infant observation for research which has been described in the former sections of this chapter, has different challenges in arguing for its validity and reliability and its value as a research tool is quite different from the more experimental methods of infant observation. As Rustin (2011) points out, "...so far as research is concerned, we are not at a stage where there are sufficient 'findings' from work in this field to enter into debate with scientists from more empirical traditions, even if we wished to. There may nevertheless be *areas where useful exchanges of ideas* [emphasis added] may be possible." (p.181). Even though there has been a growing body of research which takes its methodology as infant observation of the Bick/Tavistock school, in the past 14 years, I do not believe we are still in a place where findings from these studies may be compared with more experimental, laboratory-based observational methods nor is this comparison necessary. This type of infant observation as a research method and how they are answering their research questions are quite different than those of the experimental methods. As Rustin has pointed out, this however does not mean that findings from such research cannot be used to inform *some* fields of research in starting the exchange of information and discovery of under researched phenomenon, as the aim of such research is mainly discovering answers to certain phenomenon rather than testing out hypothesised answers to others.

In the same paper, Rustin (2011) goes onto write that the "the primary educational setting of infant observation imposes unavoidable limitations on its potential for generating new knowledge" (p.182) but that assigning a more specialised form to studies taking this type

of infant observation as a method may be a potential answer to this limitation. This, Rustin argues, can be paired with having experienced observers who conduct their observations with a sample of families who are recruited with a particular research interest in mind, especially for understanding certain areas of research. The potential of such specialised research was shown in a special issue of *International Journal of Infant Observation and its Application* (2007, Volume 10, Issue 3) which described the first funded (by the Economic and Social Research Council) project using the Bick/Tavistock method of infant observation as a method of research titled: 'Identities in process: Becoming Bangladeshi, African Caribbean and White mothers'. This project looked at women's experiences of becoming mothers in a non-clinical population from a particular cultural and ethnic background, using a combination of Free Association Narrative Interviews with infant observations (Hollway, 2007)

Infant observation has been able to contribute to psychoanalytic knowledge of the clinic, most notably the emphasis it has added to working with countertransference (Urwin & Sternberg, 2012) but infant observation's value as a method of research and knowledge inquiry is not limited to its contributions to clinical practice and training. Infant observation presents a unique view and stance for engaging with knowledge and data gathered as a researcher and observer. Putting the subjective experience and affective processes of the observer/researcher as an object of study, infant observation as a methodology recognizes that the research and observer/researcher may be changed by the process of their experience of observation and that this subjectivity and experience of the observer should be examined as contributing to our knowledge generation in qualitative research in the social sciences (Hollway, 2007, 2012). Here we see the difference between methodological procedures and data gathering in natural sciences and social sciences where the latter gives importance to observation in a naturalistic environment with minimal intervention and making use of subjective experience of the observer. This also speaks to the epistemology of this method of research; as Hollway (2007)

remarks, “[t]he practice of infant observation has always been based on a different epistemology to traditional social science methods: on the use of the observer’s subjectivity as an instrument of knowing” (p.333). This use of the observer/researcher’s own subjectivity, their countertransference, becomes a necessary research tool for learning about certain forms of knowledge, that is inquired about using infant observation as a method.

This understanding informs the ‘objectivity’ of the information discovered by infant observation which speaks to its validity. Here, we are not referring to the objectivity of positivistic sciences where the researcher is situated outside of what is being researched, as Hollway (2012) argues, this way of trying to achieve objectivity is being vigorously criticised in social and human sciences. What ‘works’ for studying some phenomenon, Hollway continues to write, is the understanding of objectivity that is achieved by noticing and reflecting on emotional responses of the observer/researcher which is similar to Winnicott’s conceptualisation of objectivity as taking up an “external position” which is “outside the area of projection” (Winnicott, 1971/1958 as cited in Hollway, 2012).

We don’t just ‘learn about’ while conducting this type of infant observation and using it as a research method, we ‘learn from’ the subjective experience (Bion 1962, Rustin 1989) of being with the mother-infant pair that has an emotional impact on the observer. Not only does the observer get emotionally affected by the experience of observing, but they too have an effect on what is being observed. There is a need then to “develop research methods that incorporate in a systematic way the researcher’s affective and subjective experience” (Urwin & Sternberg, 2012, p.5), to be able to access the embodied and unconscious material that arise in the Bick/Tavistock method of infant observation, which is beyond the structure of more experimental methods of research. Such methods of research, if applied to certain areas of study, like the one at hand, carry the risk of “depleting vitality, depth and creativity” (Hollway, 2012, p. 30) from the phenomena being studied.

Even if observers cannot ‘test’ out their hypotheses with interpretations like an analyst would in a clinical setting or by doing microanalyses of videotaped observations, conducting an infant observation has proven to be a field where observers can learn about the internal experiences of the observed mother and infants through their own subjective experiences (Rustin, 2011a, 2011b) bringing us back to the above importance of taking the observer as an object of study too (please refer to chapter 9.3. *Role of the Observer* for discussion of this subject, for this specific project). In this sense, the Bick/Tavistock method of infant observation as research, situates the ‘total situation’ of the observation to arrive at its knowledge (Price & Cooper, 2012). To ensure the validity of claims made from this ‘total situation’ and the subjective experience of the observer, the affective responses of the observer need to be scrutinised and developed within multiple viewpoints (for example the infant observation seminar) before meaning is given to a certain observed behaviour or event, following the principle of triangulation to “ensure rigour in the investigative process” (Urwin & Sternberg, 2012, p.6). This method of knowledge generation and treating data is not unique to infant observation but also has been followed by different disciplines like ethnographic studies or fieldwork used in social anthropological studies (Price & Cooper, 2012).

Even under said scrutinization, a single-authored project, like the current study, will always be the creation of the author. That being said, the observations and its analyses will discover ‘facts’ about the world observed that does exist independently from the observation and the record of it (Price & Cooper, 2012). This is a keyway of starting to address the epistemological problem of infant observation, specifically of how can we claim validity of our interpretations of infant observation data? Price & Cooper’s (2012) answer to this is that:

psychoanalytic observation, and clinically oriented psychoanalytic research generally, occupies a third position between ‘naïve’ realism and constructivist relativism.

Emotional and unconscious states are ‘real’, accessible to us as knowing subjects, but their ‘meaning’ is also inherently ambiguous and multiple. Multiple interpretations may be ‘valid’, but this does not apply to all or any interpretations. The observational ‘facts’ delimit the range of interpretive possibilities. (p.58)

The subjective experience of the observer, the reflective process of knowledge generation and the multiple levels of ‘cross-checking’ of information emerging from the infant observations will provide a certain range of possible claims we can make about our observations.

For using the Bick/Tavistock method of infant observation as the ‘research method of choice’, it is important to identify an appropriate research topic and questions; questions or hypotheses which need answers in the form of precise numerical outputs would be inappropriate for such a methodology but would be better suited being studied with hypothesis testing, experimental research methods and observational research used by the likes of Stern or Beebe & Lachmann. The former method of infant observation, which is better suited for qualitative and exploratory studies, is better able to capture “subtleties of emotional processes in day-to-day family contexts” (Urwin, 2007, p. 239) and should be used to study phenomenon which we can hope will be arise in such settings.

The are of study of this type of infant observation is that we are aiming to capture from our research the more embodied, unconscious and relational aspects of phenomenon with it, like the growing relationship between mother and infant and the development of their infant in relation to the growing identities of their mothers that has been investigated in this project. The Bick/Tavistock method of infant observation is a naturalistic way of gathering data for research about the inner world of the infant, through their behaviour and the subjective experience of the observer/researcher, which otherwise would not have been possible to capture so clearly

(Briggs, 2002). The advantage of using infant observation as a method of research comes with its ability to capture said embodied, unconscious and relational material which talk-based methods, like interviews alone, would have difficulty capturing due to them being reliant on verbal material alone, which can be under conscious control (Hollway, 2007). Infant observation can “access what could not be verbally expressed by research participants; it could go beyond the intentional account and beyond narrative coherence” (Hollway, 2012, p. 27).

The problem of generalisability for infant observation has not been addressed in this section, please refer to section 6.4. *Epistemological Concerns* for a discussion of this where it is argued that we can take the semi-structured interviews and infant observations together as producing case studies that can claim to have *analytic generalisability*. The validation of data gathered from infant observations through reflexive thematic analysis (Braun & Clarke, 2006) is also further discussed in the next section.

6.3 Data Analysis

All five interviews were video recorded using the Zoom software and all interviews were transcribed verbatim from these recordings by me, the researcher. After transcription, all recordings were deleted from the Zoom cloud software. After every infant observation, a detailed transcription was written by me in everyday language, true to the Bick Infant Observation method. To analyse the data obtained from the transcripts from the semi-structured interviews and the infant observation notes, reflexive thematic analysis (Braun & Clarke, 2006, 2014, 2022) was used. This method of qualitative analysis was chosen due to its strength in giving the researcher an active role where themes don't simply 'emerge' in a passive manner, but the researcher gives the data collected a voice, much like in infant observation. The themes in this method of inquiry can either be approached in an inductive or theory-driven manner.

For the analysis of the data at hand, an inductive manner was chosen, to stay open to the content of the observations without being driven by theory. Theory was applied at very end of the analysis at phase 6 (please see table 1 from Braun & Clarke, 2006, p.87), to answer the research question.

Table 1

Table 1 Phases of thematic analysis

Phase	Description of the process
1. Familiarizing yourself with your data:	Transcribing data (if necessary), reading and re-reading the data, noting down initial ideas.
2. Generating initial codes:	Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code.
3. Searching for themes:	Collating codes into potential themes, gathering all data relevant to each potential theme.
4. Reviewing themes:	Checking if the themes work in relation to the coded extracts (Level 1) and the entire data set (Level 2), generating a thematic 'map' of the analysis.
5. Defining and naming themes:	Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells, generating clear definitions and names for each theme.
6. Producing the report:	The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research question and literature, producing a scholarly report of the analysis.

Reprinted from "Using thematic analysis in psychology", by V. Braun & V. Clarke, 2006, *Qualitative Research in Psychology*, 3(2), p.87.(<https://doi.org/10.1191/1478088706qp063oa>)

The nature of thematic analysis enables the researcher to both reflect on and to investigate the latent content of the interviews and observations. This opportunity for a deep investigation and description of data enables the researcher to shed light on under-researched areas, such as the project at hand, because this method of analysis gives way to a detailed and nuanced report of themes that surround the subject of investigation which might relate to the specific questions asked by the project or provide a space for latent themes that might appear within the process (Braun & Clarke, 2006, 2014).

Thematic analysis' flexible approach helps call attention to the similarities and differences across data sets. This advantage of the methodology is especially important because the aim of the research is to explore the themes that were discovered from the interviews with the mothers and the infant observation with their parallelisms and divergences. Just like infant observation makes and collects data about the child's psyche through repeated trends in behaviour (Bick, 1964), thematic analysis relies on the same principle of interpreting themes that were discovered from repetition in data, making it suitable to code and analyse data discovered from the infant observation.

The analysis of the data in reflexive thematic analysis starts during the transcription process. As described in Table 1 (Braun & Clarke, 2006) above, there are 6 phases in producing a report on findings of your data. The first phase involves a reading and re-reading of data while taking notes to familiarise yourself with it. In the second phase, you start to generate initial codes and gathering material within the dataset to fit into these codes. In phase three, potential themes are written down to provide as an umbrella for the codes created in the previous step. In phase four, these overarching themes are reviewed and put into a visual map to help with seeing the dataset, and to review again if the themes work with the codes they were derived from. In phase five, the themes are named and defined, to start to put these themes into a narrative. Lastly in phase six, these themes are analysed and reported with frequent links back to the dataset, literature, and research questions to provide a picture of what these themes tell us about what was discovered.

As we can see from these six phases, the circular movement of knowledge generation that bores within itself a sort of 'checks and balances', closely resembling the method of knowledge creation in infant observation. They both take attention to detail and reflexivity central with an aim to demarcate themselves from theory and assumptions to discover knowledge. The reflexivity of the researcher reading and re-reading the data then checking and

re-checking what they have discovered in different steps closely resembles the seminars of infant observation. Another important aspect of both methods of research is the fact that they consider the act of writing as an integral part of knowledge generation (Braun & Clarke, 2006, Rustin 1989b, 2006).

An important note here is that different themes were found for each interview and each infant observation. Finding common themes across interviews or infant observations was not an aim for the data analysis, as capturing the individual experience of all mothers and infants was key, although there were some interviews and observations which produced similar themes. The commonality that I was looking for was *if* there was a relationship between themes found in the interviews, relating to the maternal phantasies and perceptions with the themes found in the infant observations, relating to the early development of each individual infant in how they reacted to their environment and their emerging relationship with their mother.

The findings from the semi-structured interviews and findings from infant observations were analysed with the methods described above separately. The interviews with the pregnant women were analysed shortly after the interviews were conducted and transcribed to make sure that the non-verbal communication and my countertransference were easily accessible. All interviews were analysed separately with trying to leave at least one month between the analysis of each interview to make sure cross-contamination across interviews was minimised. The infant observations were held nearly a year after the interviews and went on for 10 weeks, bringing the gap between analysing the interview and infant observation to above a year. Detailed notes were taken after each observation. The infant observation notes were analysed as a whole, themes derived from the full 10-weeks of observation.

Different codes and initial themes were discovered for each interview and infant observation separately. All six phases of thematic analysis (Braun & Clarke, 2006) were followed while writing *Chapter 7- Findings from Interviews*, and the interviews were analysed

and reported before conducting infant observations. There are 5 different sections in Chapter 7, discussing all 5 mothers separately like a single-case study. In *Chapter 8- Findings from Infant Observations*, the main focus was on the material coming from the infant observations with their own themes, but this chapter was also the first place that both legs of the research were incorporated. The only difference here from Chapter 7 was that only phases 1-4 were conducted with only the material from the infant observations and the interviews with the mothers were revisited in phases 5 and 6 (Braun & Clarke, 2006) to be able to paint a more holistic picture and to be able to start understanding *if* there was a relationship between the themes that were discovered in the interviews with the themes that were discovered in the infant observations.

The themes and statements made in Chapter 8 relating to the pre-natal quality of the infant's development were purposefully left as speculative or as questions, to highlight the discovery element of this chapter. The discoveries from the 10 weeks of infant observations were discussed in length with detailed vignettes from the observations, with frequent links back to the interview material, 'normal' infant development, and other relevant literature. The reader is also asked in this chapter to take part in this knowledge creation with invitations to think together with the material. There are 5 different sections in Chapter 8, discussing all 5 mother-infant duos separately like a single-case study.

Chapter 9- Discussion, brings together *all* material from chapters 7 and 8 to start thinking about the phenomenon of prenatal experience and how we can observe this in early months of life. In this chapter, it was not analysed if there were commonalities in material between the interviews but if the different infant observations were starting to build a common picture of *if* there are parallels between what the mothers presented during their interviews with what was observed in the infant observations, irrespective of the individual differences between the mother-infant pairs.

6.4 Epistemological concerns

The main limitation predicted for this PhD research and its methodology is the fact that, just like speculating about the first months and years of life of the infant, theorizing about prenatal life and the experiences of a foetus can only be done inferentially. Here psychoanalytic theory becomes my main tool, used with different disciplines, to study psychological reality. Infant observation and qualitative interviews conducted will serve as evidence to the epistemological inquiry of the concept of intrauterine experience, aided by the multidisciplinary literature review conducted.

I would like to turn here to why and how using the interviews with infant observation might help us understand the research questions at hand. It is a particularly tricky question as it speculates on inferential material which can be contaminated by the fact that the phantasies and perceptions of the mother in prenatal life can and probably will be present in the postnatal environment. This creates an irresolvable tension where what has been observed in the infant observations cannot be directly linked in a causal manner to the themes that arise in the interviews. This is a problem I will keep referring to in Chapters 7, 8 and 9 and discuss how we can see the material arising from this research. What I would like to point out here, and it's something that infant observation as a research method has struggled too since its conception, is the validity and value of inferential material along with the contribution of case-studies.

Neither infant observation in general or this research claims statistical representativeness or empirical generalisability. It is not the aim of this study to find a definitive answer or validation to its research question. Its aim is to open a door for discovery and exploration into the relationship between prenatal maternal phantasies and perceptions and the

very early development of an infant. What we can perhaps hope to achieve with this exploration is analytic generalisability with thinking about each mother-infant duo as a single case study.

Adding onto the six styles of scientific thinking, Hacking (1995) conceptualized a seventh scientific thinking style which applied to psychoanalysis and case studies, ‘thinking in cases’. He came into this term with the study of Kuhn’s (1962) theory of exemplars and argued that:

One learns how to do science not by learning the rules of principles or concepts and then applying them to concrete situations; rather, one learns how to do science by learning how to work with exemplars: extending them, reproducing them, turning a novel situation into a version of a well-understood exemplar (Forrester, 2017, p. 7–8).

With taking case studies as ‘the royal road’ to producing exemplars in psychoanalytic knowledge generation, much like many influential psychoanalysts like Freud, Klein, Winnicott, Kohut and many more still to this day do, we can start to think of how looking at these mother-infant duos can help us start to answer the questions that have been asked for this research and the value it may hold for psychoanalytic theory of when we can place the beginnings of experience. For example, Freud’s (1905) failed case of Dora provided him with an ‘exemplar’ for clinical transference on which he built his theory of transference. This case study became important not despite its failure, but because of what this failure revealed about the analytic process. When Dora abruptly ended treatment, Freud later realised that he had not fully recognised how her feelings toward significant people in her life were being replayed in her relationship with him, a process he later came to understand more clearly as transference. This insight turned the case into an exemplar that psychoanalysts could learn from to recognise similar patterns in their own clinical work. Rather than offering a general rule, the case

provided a vivid example of how transference can shape, and even disrupt, analysis if it is not properly attended to.

For analytic generalisation, the process of knowledge generation often starts from a theoretical problem or gap and tries to investigate it by finding a case that has rich data to help analyse this problem or gap. Here we see that analytic generalisation and case studies are not suitable or applicable to statistical or experimental methods where theories are tested but that they *discover, describe, and conceptualize* phenomenon. They are preliminary, ethological data which are descriptive in nature. They do not claim to prove or disprove specific hypotheses. Put simply, they form evidence-based concepts (Morgan, 2012) where the exemplar produces data which enrich theory or refute certain *parts* of existing theory. The empirical and the analytic generalisation are two different ways of thinking with different end goals and neither of them can be regarded as a ‘higher’ science but as distinct styles (Hacking, 1995).

6.5 Ethical Considerations

Written and verbal permission to use data derived from interview and observations for this research project was given by all participants. All the participants were told both in writing and verbally that they could withdraw from the study at any given time without having to give any explanation. Given the state and later age of foetus and later baby, it would not have been possible to seek their consent and consent from their mothers were used on their behalf. All methods of data collection and interpretation were selected before starting data collection and a detailed outline of the research and its methodology was presented to the University of Essex’s ethics committee who granted ethical approval on 23/04/2021 (Appendix D). All names and identifying details of participants have been changed. Due to the sensitive information in this thesis, detailed extracts coming from the interviews and infant observations

will also be locked to the general public and will be uploaded onto the necessary repositories with restrictions. These details are not thought to be recognisable by the general public, but some details may be recognisable to the participants themselves.

Chapter 7: Findings from Interviews

Chapter 7: Findings from Interviews has been redacted from the deposited version of the thesis for data protection purposes.

Chapter 8: Findings from Infant Observations

Chapter 8: Findings from Infant Observations has been redacted from the deposited version of the thesis for data protection purposes.

Chapter 9: Discussion

In this chapter, I will come back to my research problem and questions with a brief outline of the major findings that were discussed in Chapters 7 and 8. This brief overview will be followed by an outline of the interpretations that can be derived from my data, to demonstrate what my results mean in understanding and answering the research questions. I will discuss the implications of my results and try to understand how they tie in with the literature review; how my results parallel previous theories and research along with how the findings from this research can help fill in the gap as laid out in the research problem. I will end with acknowledging the limitations of the research at hand along with recommendations for future works.

In this thesis, I set out to explore the relationship between maternal phantasies and perceptions during pregnancy with the early development of an infant and how infants' 'experiences' and 'memories' of their prenatal life might colour their relationship with their mother and early interactions with the external world. This was set as the research question as there is a lack of empirical research about the relationship between maternal phantasies and perceptions during pregnancy and the early functioning and relating of the infant to its external world. The results discovered from analyses of the interviews and infant observations tell us that we may infer some parallelisms between maternal experiences during pregnancy and early infant development. This early development is observed from the 'reactions' the infants showed towards their environment and mothers, along with the early defence mechanisms they had equipped themselves with to accommodate the image that was painted for them in the phantasy of their mothers. These defences seemed to function as a way of maintaining a relationship with their mother through this image.

9.1 The relationship between pre- and post-natal life

I would like to start discussing my findings and what they might tell us about foetal experience by thinking about this famous quote by Winnicott (1965), that “...there is no such thing as an infant. Whenever one finds an infant one finds maternal care, and without maternal care there would be no infant” (p. 586). How can we talk about foetal experience and an infant’s early relationship with his environment when we cannot separate him or more specifically, *understand* him as a separate being from his mother? For the research question at hand and the conclusions that have been carefully constructed, I argue that we cannot. As laid out elsewhere in this thesis, it is difficult to separate the real intrauterine experience and the narrative of it, and this is potentially an irresolvable tension. This tension is particularly present in the relationship between the unit of mother-infant due to the difficulty of a mother demarcating clearly what are her fantasies and perceptions of her infant versus what is true of the ‘real’ infant. I have proposed in my hypothesis that the ‘real’ infant is co-constructed with these perceptions, phantasies, and behaviours of his mother and perhaps there can never be a ‘real’ infant, if we define ‘real’ here in this section as being independent. Here, independence or separateness in the most literal sense of the word is not possible as it can only represent an omnipotent phantasy. As Winnicott said, we can only think of the infant as part of the mother-infant unit. This prelude was needed to understand my findings and how I have chosen to present them, as it has been a challenge I have faced while observing, analysing, and describing my data. I have come to understand that I cannot just talk about the infant who has been influenced by the pre- and post-natal world but that I need to discuss the mother who has been doing the influencing in detail too.

9.1.1. *Protective phantasies and reparation*

Analysing the data gathered from the interviews together with the infant observations, we saw that the infants seemed to have identified with the phantasies that were interpreted to be present in the mother during their pregnancy. These phantasies were often constructed against how they experienced their foetus as affecting their daily life, as seen in the interviews, but what emerged as significant and what their infants seemed to have identified with was the *protective phantasies* that were present in the psyche of mothers which helped build a functional relationship with their infant. This building of a relationship functioned through repairing the adverse experiences of the mothers either during the pregnancy or through a reparation of *past* adverse experiences, namely intergenerational difficulties. This relationship and reparation were both observed in the interviews and throughout the infant observations.

What I called protective phantasies were present during all but one interview. These phantasies were seen to be present as a way of building or maintaining a relationship, with their foetus and future baby. These protective phantasies were inferred to be constructed *against* the difficult experiences and/or conflictual emotions that the mothers were experiencing during their pregnancy. These difficulties ranged from physical symptoms of pregnancy like nausea to the experience of a previous miscarriage. Conflictual emotions ranged from experiencing their foetus as disruptive to having difficulties coming to terms with the identity of becoming a mother. Pitted against these difficulties, the protective phantasies counteracted these difficulties with taking on the shape of an antithesis; for example, if the difficulty experienced was “disruption to daily life” the protective phantasy here would be constructing the foetus as an “independent baby”. Here, the antithetic protective phantasy facilitated the toleration of what Parker (2005) called ‘maternal ambivalence’ by presenting the mother an alternative way of experiencing her foetus. Maternal ambivalence is the experience of having love and hate

emotions about one's foetus/infant at the same time. This, Parker argues, is not something that *some* mothers experience but that *all* do. What differentiates the experience and practice of both pregnancy and motherhood is how conscious the individual is of these simultaneous emotions and how much she can tolerate them.

Maternal ambivalence, or more specifically the tolerance of it, allows for the attributes of creativity, flexibility and openness to change which are all critical for the maturational processes of pregnancy and changes that come with motherhood. These features of motherhood and personhood promote thinking about their foetus/infant and the emerging relationship with them. Beyond thinking about another being, another important gain from maternal ambivalence is the capacity to think about and reflect on the changes that is happening for the pregnant woman, both externally and internally. This capacity for thinking is also a key feature of maternal resilience, the ability to withstand the changes to life and identity that come with the experience of motherhood (Baraitser & Noack, 2007). Externally, there will be the inevitable changes in the physical body and the necessary accommodations to daily life during pregnancy and motherhood. Internally, the pregnant woman will be grappling with the adjustments to and the reworking of their identity (Davies, 2025; Raphael, 1975; Raphael-Leff, 1995, 2004).

Of course, the co-existence of the loving and hating emotions about one's foetus/infant or about being pregnant is a difficult state to be in constantly and a state that can trigger guilt and anxiety (Klein, 1940). These feelings can get further entrenched with societal expectations of what motherhood should look and feel like, alongside the common use of other mothers as mirrors and a measure of 'success' in motherhood or pregnancy (Parker, 2005). Herein lies the biggest challenge to the toleration of maternal ambivalence. With the near constant effort that the co-existence of opposing emotions take, more primitive defences like denial may be used against the awareness of them. This 'painful ambivalence' that needs to be denied also denies thinking. Such a denial does not mean the elimination of conflictual feelings but potentially,

the unconscious repetition or acting out of them (Freud, 1914). The denial of negative emotions stops the creative process of mothering and can lead to what Raphael-Leff (2004) called 'primary maternal persecution' where the experience of motherhood becomes overwhelming and the mother is unable to sustain the difficult task of maternal containment. Here, the denied negative emotions may be transformed into feelings of being invaded or persecuted. The concept of 'primary maternal persecution' is the antithesis of 'primary maternal preoccupation' (Winnicott, 1956) which enables the mother to be attuned to her infant's needs and a general ability to recognise their emotional states. We can say that in primary maternal persecution, the mother's emotions and needs take precedence for the mother, making it difficult if not impossible to recognise the individuality of the infant.

With the hope of maternal ambivalence, facilitated by protective phantasies, mothers seemed to be more able to imagine a relationship with the foetus/infant. The presence of these protective phantasies was also predictive of a more functional relationship between mother and infant in the postnatal environment too. An understanding of the difficulties mothers experienced were derived from participants' statements in interviews and protective phantasies were understood by said statements, observations of the mother and infant, and inferred by the researcher.

It was meaningful to see that the infants seemed to have identified with these protective phantasies of their mothers, as seen in infant observations and inferred by the researcher. I am using the word infant here instead of foetus because it was the infant that I observed showing signs of identifying with the phantasies of their mother that maintained the relationship for them also. As mentioned above, these protective phantasies presented almost a justification to the physical and emotional difficulties of pregnancy and becoming a mother and the identification with them for the foetuses was like an embodiment of this justification. With this

embodiment, the foetuses/infants seemed to learn how to act to maintain their relationship with their mother and not overwhelm them which might mean losing their care.

For example, Carla (ch. 7.2. & 8.2.) had given up her fantasy of having her own nuclear family, consisting of mother, baby, and father when she decided to become pregnant using a sperm donor and IVF. She had acknowledged the needed mourning process that was necessary for this loss, but the foetus/infant was still constructed as being ‘magic’ to perhaps justify this big sacrifice and the anxieties she had around being a single mother. The phantasy of the ‘magic baby’ here was a protective phantasy against the adverse experiences Carla was experiencing in the here-and-now of her pregnancy and was actively working towards resolving the losses and anxieties she was experiencing. This protective phantasy was for her prospective worries about the realities of being a single mother. It would not be the team of “mommy and daddy” but that of “mommy and son”, perhaps meaning that the infant would have to ‘put in the work’ to contribute towards it. Baby Michael seemed to identify with this protective phantasy of her mother and the way he interacted with his mother and the world closely resembled what was required from this role. He was an easy baby who often resorted to second-skin defences (Bick, 1968) to build an illusion of control and pseudo independence, not disturbing his mother or the illusion of the “magic baby”. This illusion and ‘magic’ were only possible in the presence of his mother, with baby Michael freezing when he was left alone. He seemed to need his magic/omnipotent mother to foster his own.

An important note here is that all the women who I interviewed had planned for their pregnancy so, there was not a need to come to terms with the ‘surprise’ of an unexpected visitor. That being said, the one woman who was not seen to have a protective phantasy, Gemma, was having difficulty with adjusting to the idea of becoming a mother, talking at length during the

interview about the conflictual feelings she possessed, and seemed to have suffered from a low-grade post-natal depression in the postnatal environment.

It was not only the adverse experiences of pregnancy or the circumstances around it that made it necessary to build these protective phantasies, but it was also the adverse experiences of the past that many of these women were fighting against. For Kayla and Madlyn, part of their anxieties that needed these protective phantasies came from their experiences of previous pregnancies and/or experiences of miscarriage. Kayla (ch.7.4. & 8.4.) had a miscarriage before her current pregnancy with Briony which she experienced as a big loss. Falling pregnant shortly after, it was difficult to mourn her loss, and the ghost of her previous pregnancy seemed to haunt the pre- and post-natal environment. As she stated in her interview, during pregnancy, she dealt with this ghost and the paranoid anxieties (Klein, 1946) produced by this tragic event by reverting to obsessive defences. This was seen to continue in the post-natal care with Kayla constantly being active, trying to prevent stillness and silence due to what it may have represented in her internal world, death.

As observed in the infant observations, within the mothering encounter, Kayla's paranoid anxieties seemed to lessen, and she used her defences less. What was interesting here was how this was not possible for Briony, she seemed to be stuck in the repetition compulsion (Freud, 1914) of proving her liveliness, her survival, inferred from her behaviour during the infant observations. This was especially apparent in Briony's ambivalence during feeding. Especially when on the breast, Briony would constantly wriggle and push away her mother while passionately sucking the breast at the same time. A similar dynamic was also present when Kayla and Briony's very physical, imitative plays would suddenly come to an end where Briony would be left staring at her body which was being imitated by her mother. We might speculate that these instances were clues into the prenatal qualities of Briony's relationship

with the world. She seemed to be 'stuck' in the liveliness required by the protective phantasy of the "survivor baby", that I had inferred she needed to identify with, in order to help her mother work through the emotional difficulties aroused by that of that "ghost baby", which Kayla talked about in her interview.

A similar dynamic was present for Madlyn (ch. 7.3. & 8.3.) with her having paranoid anxieties about the well-being of her infant. This paranoid anxiety seemed to be trickier for Madlyn as there was an added level of guilt, with a proposed unconscious belief that the creativity of her pregnancy and sexuality caused harm to older generations, which I had speculated about based on her statements in the interview. Madlyn had a daughter and her previous pregnancy with her was riddled with illness and death. Her pregnancy with Ulrich followed suit with both of Madlyn's parents falling seriously ill during it. Madlyn's pregnancy with Ulrich also followed a pregnancy which was found to be an empty gestational sac that had to be curetted. It was almost as if desire towards life annihilated it. With the proposed danger of Madlyn's creativity, she resorted to the more passive stance of not imagining or talking about her baby to protect it. The protective phantasy here was the "not-talked-about baby" which denied separateness.

As seen in observations of mother and infant, baby Ulrich was a very still and quiet baby. He would usually be fastened to a seat which would limit mobility on the lower half of his body, but he seemed to not mind this, not making much movement on the upper half of his body either, not reaching out or making attempts at exploration. When left to sit on his own, it was also seen that he had difficulty controlling his body, even at 9 months, falling over like a doll. His difficulty over his bodily autonomy could be explained with the rigid control from his mother in the first months of his life which would make it difficult to build this autonomy but what about his lack of exploration and movement in the upper half of his body? This lack

coupled with the various feeding and dermatological problems Ulrich had, made me hypothesise that he might have identified with his mother's protective phantasy prenatally too. Ulrich seemed to have somehow understood the dangers of separateness, of creativity, of exploration and desire and 'shut' himself off from the external world. As discussed in the relevant chapters (ch. 8.3.), baby Ulrich did not have an abusive or neglectful post-natal environment that would require this avoidance, his sister paradoxically was a very lively little girl who tried to engage him frequently. But from the observations, I inferred that baby Ulrich came with a preconception of how he must be to 'survive' and was stuck in this withdrawn state, even if his post-natal environment proved some liveliness he could cling onto. This fact along with the somatic issues he was having made me speculate even further about the primitive, pre-natal quality of his defences.

The need for these identifications was not only present due to difficulties belonging to recent history or difficulties with previous pregnancies/miscarriages, but these identifications also seemed to serve a purpose and a need for the mothers in wanting to fix, but often repeat, intergenerational patterns. Sarah (ch. 7.1.), Kayla (ch. 7.4.) and Gemma (ch. 7.5) all reported in their interviews, conflictual relationships with their mothers and their experience with the way they were mothered which they desired to be different for their own baby. From the participant's statements and observations of mother and infant, I observed and inferred that when there was a high investment to change this narrative, it produced anxiety and sometimes envy for the mothers. This was seen for Kayla who in her anxiety about being either like either of her parents, seemed to create another type of need for compliance from her baby, the lively baby who could not relax into her own needs or achieve satisfaction due to hyperstimulation (ch.8.4). This needed compliance can be said to be like the dynamic of trying to enliven a depressed mother, which was what Kayla experienced in her childhood.

A pattern of repetition was also present for Gemma and her baby Olivia (ch. 8.5). Gemma also had a depressed mother in her childhood who Gemma experienced as swinging between being neglectful or suffocating. In her interview, she said that she really wanted her baby to be different than her, both in personality and her experience of mothering. As inferred from her statements during her interview and observed during infant observations, this desire produced many conflictual feelings in Gemma, eventually leading to envy towards her daughter being different from her. This envy was acted out in creating an environment where mother's needs would be actualised instead of infant's; Gemma would usually choose which type of game they would play, take away toys Olivia showed interest in or end up playing with the chosen toy herself as baby Olivia stared on. Gemma was the only mother out of the 5 who did not present a protective phantasy during her interview (ch. 7.5.) and she reported that she experienced her pregnancy and foetus as disruptive. It was observed and inferred in infant observations that Baby Olivia seemed to identify with this image of the "disruptive baby", as she seemed to reject her mother and deprive herself from the care coming from her. This seemed to be even present in the prenatal environment as Olivia stopped gaining weight during the third trimester, making the doctors fear for her wellbeing. In the post-natal environment too, baby Olivia was a very small baby, and she had many issues around feeding and sleeping. Gemma would not persevere often in her attempts at feeding baby Olivia, giving up feeding when Olivia would not take the spoon in the first or second attempt. Olivia also had many food allergies. During the infant observations but also from Gemma's descriptions of the post-natal environment after birth, we saw a vicious cycle of rejection and deprivation between mother and infant. What was perhaps even more striking for this study was that this cycle seemed to have its roots in the pre-natal world where foetus Olivia stopped gaining weight, seemingly rejecting nutrition in the intrauterine world.

During her interview, Sarah had also informed me that she imagined a different life for her baby, a childhood that was not riddled with parental expectations (ch. 7.1.). Sarah had experienced her foetus as “disruptive”, like Gemma, but she had built a protective phantasy of the “independent baby” to counteract this disruptive perception. Sarah’s son baby Henry was observed to be quite an independent baby, seemingly identifying with the mother’s protective phantasy. It was interesting to hear from Sarah in the pre-observation interview, that baby Henry was quite small when he was born, and a close eye had to be kept on whether he was meeting appropriate goals for his weight. One prominent pattern observed in the infant observations was that baby Henry was inferred to prove his independence towards his mother with his gaze avoidance, especially during feeding. This was not a generalised avoidance though as he would be staring at his father, seeming to soothe himself. This avoidance of mother/interest in father was present since birth as Sarah described, baby Henry would smile at his father but not show interest in his mother in earlier months either. Baby Henry’s interest in his father and his father’s involvement in parenting was something that caused envy in Sarah too; she told me this herself, reflecting that it was difficult to see what a good father her partner was when *her* father was not. This envy seemed to get acted out during feedings observed, with Sarah holding the spoon just a little too far away from Henry so that he would have to reach towards it and if he did not, she would quickly give up feeding him. From the observations, it was inferred that Henry had to adapt to Sarah and her demands (ch.8.1), which seemed to repeat some aspects of the intergenerational patterns.

We could see from the infant observations that although Henry was trying his hardest to remain the “independent baby” with his second-skin defences, the product of these defences seemed to make Sarah feel rejected. A reparative opportunity arose when Henry started crawling and was able to crawl *towards* mother, showing his desire. Right around the same time, he started playing a fort-da game (Freud,1920), throwing a toy then crawling to retrieve

himself. He was restoring the object himself. These games seemed to help him resort to second-skin defences less with the mother becoming more available too. Sarah started becoming more available with the effort of her baby, moving towards her, and complying with her requests. The crawling *towards* mother seemed to help Sarah repair her own internal representation of herself and of the mother. This reparation was inferred from the observed change in the way Sarah related to baby Henry, after he started crawling towards her. With this reparation, she was able to become more receptive and more spontaneous within her relationship with Henry (ch.8.1.). Independent baby and independent mother were able to transform the mother, thus the nurturing relationship together, with the lead of baby Henry.

An important pattern emerges here that was true for all mothers in the study: the transformative and reparative space of becoming a mother, especially for primigravida mothers. What emerged as being necessary for the experience of mothering to be transformative in a reparative way was the necessity of the mother having an internal representation of experiencing herself but also her own mother/parenting experience as good. An aspect of the latter that was seen as being crucial was having experienced creativity, flexibility and spontaneity in her own childhood and mothering; having been able to *use* her mother (Winnicott, 1969) to build her sense of self without worrying about overwhelming her or without needing to comply to her mother's demands. If this structure and perceived experience was not present in the mother or was not worked through during pregnancy/before birth, it became difficult for these mothers to respond to their babies spontaneously and playfully, it was difficult to have this flexibility if the mother did not experience it herself during her childhood. Without this pre-established structure in the mother, a *need* for mothering to be a transformative opportunity arises, with the mother trying re-build these internal structures in the first months after birth. For the infant, this means a need to forgo his own

spontaneity and exercise compliance to help the mother do this, often leading to a repetition of intergenerational patterns.

We saw this difficulty most clearly in the infant observations of Sarah and baby Henry and Gemma and baby Olivia. The former pair were able to come to a place of reparation, but this did not happen with the latter pair, and it was hypothesised that this was because Gemma had not been able to build a protective phantasy to foster her relationship with her daughter. Gemma, during the interview, spoke a lot about her desire for how she would like her baby to have a different life than her, describing the exact details and characteristics she wished for. Sarah on the other hand, reported that she did not indulge in these fantasies but that she wanted her baby to be different, no matter what that looked like. While analysing the data from Sarah's the interview, I had speculated that without the bonding act of imagining her baby, Sarah might have a difficulty with bonding with her baby, which did happen in the first few months, but she was able to arrive at a reparative place where she did bond with him in the post-natal environment. This was different for Gemma who had imagined this reparation in detail. We could say that this might have put too much expectation on how the post-natal environment looked like for her and her baby, eventually leading to the frustration and disappointment that Gemma seemed to experience. This created an impossible dilemma for baby Olivia where, if she accepted the wished-for reparative environment, her mother would experience envy and she would be, and was met with, rejection- being "left in the dark", as we saw in the infant observations (ch.8.5.). The only thing she could do, and perhaps started to do prenatally, was to do the rejecting herself.

The only participant in this study who had a child before was Madlyn. As discussed, this previous pregnancy was riddled with death and illness, which Madlyn stated in her interview that she dealt with by clinging onto and getting strength from her baby. After her

maternity leave was finished at 6 months and she had to go back to work, Madlyn reported that she became depressed. Can a second pregnancy still be experienced as transformative and reparative when the pre- and post-natal period around the first pregnancy was the opposite, destructive? For Madlyn, we observed that this was not the case, especially when destructive events followed during the second pregnancy too. Instead of the pregnancy and post-natal environment becoming a transformative space, it seemed as if there was *no space* for Madlyn or baby Ulrich. We could infer in the infant observations that both baby and mother were frozen in fear, looking at the sister Daniella who seemed to possess all the power (ch. 8.3.). Baby Ulrich certainly had confusion about the space he occupied. With the rigidity in his movement, skin rashes and constant feeding/vomiting problems, it seemed that it was not known to him what his bodily boundaries were. These problems were inferred to be partly due to the fact that during pregnancy, the baby was prevented from being ‘built’ in fantasy which had echoes in the post-natal environment with baby Ulrich being prevented from exploring his bodily limits and physical environment due to fears of what this exploration might mean.

9.1.2. Maintaining a relationship with mother and movement

From all the examples given about maternal phantasies and how the foetuses and later infants seemed to identify with them, we may start thinking about how these phantasies, and especially the protective phantasies, lay the blueprints for the relationship between the mother-infant duo. This blueprint, we saw is painted by the mother’s own childhood experiences and her experiences during the pregnancy itself or previous pregnancies. This blueprint provided the relational matrix that the infant was born into and seemed to start to operate even before birth with the expectations from these phantasies being somehow translated into the foetus. This meant that the foetus ‘learnt’ how to ‘be’ in the post-natal world (Verny, 1981), to be able to maintain a relationship with his mother. This hypothesis is in line with theories of

evolutionary psychology which draw a relationship between foetal experience and adaptation in the post-natal world (Verny, 2021).

A great example and comparison of this could be done by looking at when and how baby Henry and baby Michael crawled. Sarah's baby Henry started crawling at the earlier end of the spectrum, at around 6 ½ months old. This early crawling meant that Henry was able to explore his environment and play independently, fulfilling the phantasy of the "independent baby", which Sarah talked about in her interview. He also crawled towards his mother when he became mobile, which was inferred by the researcher to be a show of his desire towards his mother, in the comfort of his independence. Henry's independence and desire towards his mother with this, seemed to provide a reparative opportunity for his mother, building a relationship between them. As discussed above, we saw in infant observations that the relationship between Sarah and Henry improved after baby Henry started crawling. On the other hand, baby Michael crawled at the later end of the spectrum, around 10 months. It was inferred from statements made by Carla in her interview, that she had imagined a "magic baby" who would justify the sacrifices she made in getting pregnant alone and to gain the strength that she needed to be able parent alone. This needed omnipotence seemed to be only possible with physical togetherness with her baby for Carla; we learnt that she suffered from what she called "baby blacks" (ch.8.2.) after birth with their first physical separation during the pre-observation interview. Perhaps we can think of baby Michael's late crawling as a way of managing the relationship with mother and to make sure she does not become unavailable again, by staying by her side and not crawling away. As I have mentioned and was seen during infant observations, baby Michael crawled at 10 months but contemplated this separation and got mother 'ready' for it too as he practiced rocking on his hands and knees, the expected step before crawling, for more than 3 months.

Before his late crawling, it was interesting to learn from Carla that baby Michael had started smiling at her at around 6 weeks. As stated by her in the pre-observation interview, this smile was what helped Carla get out of her “baby blacks”. It was interpreted by the researcher that this aid could have been with the relationship between mother-infant becoming reciprocal earlier than expected. We might see this supposed reciprocity as another way of the baby adapting to his environment to maintain a relationship with his mother and in this case enliven her and relieve her anxieties about single motherhood. A similar mechanism was seen with baby Briony. Kayla stated during her interview that she had anxieties around the viability of her pregnancy and survival of her foetus and it was inferred from the infant observations that these anxieties were carried onto the post-natal environment with Kayla’s constant movement trying to fight stillness and silence. These anxieties and at times manic defences against anxiety by Kayla, was only eased when baby Briony started ‘talking baby’. This easing of anxieties was observed and interpreted by the researcher from the changing behaviour of Kayla during the infant observations. Baby Briony was already a very lively baby who was quick to react to her mother, but it was the added dynamic of ‘speech’ to help Kayla fill the silence between them that seemed to finally ease Kayla and help her take a step back from filling every moment with baby Briony. This was a quantum leap in development for baby Briony which also coincided with her crawling which she mastered in just 1 week, at around 8 months.

9.1.3. The Birth Experience

I have discussed the role of the mother’s own childhood, intergenerational patterns, and the experiences around the immediate history of the pregnancy on the construction of maternal phantasies. The influence these phantasies had on the early emotional development of the infant and his interactions with his environment has also been discussed. From the infant observations, the birth experience was seen to act as a moderator between these maternal

phantasies/experiences and the relationship between the mother-infant in the postnatal environment. How the birth went, if it was a traumatic experience for mother, if unexpected circumstances arose all contributed to this moderating effect. All mothers except Madlyn⁴ prepared for and desired a vaginal birth. Oddly enough, all mothers had to have c-sections due to complications during birth. This reality affected the mothers all in different ways, but they all had post-operative physical pain, as stated in their pre-observation interviews.

Two mothers had birth experiences that very closely resembled some of the phantasies that were inferred by the researcher from their interviews. Madlyn (ch.7.3) had a phantasy about the “powerful baby” who helped her overcome the difficulties that she had and was experiencing around her pregnancy. In her previous pregnancy, she developed depression after finishing her maternity leave at 6 months, feeling powerless without her baby girl. It was formulated from her statements in her interview that in her current pregnancy, it was difficult for her to imagine her baby and create fantasies about the unknown due to her supposed fears around the consequences of her creativity. During our first meeting after the birth (ch.8.3.), I was amazed to learn that perhaps her foetus had not wanted to ‘leave’ her either, with the placenta sticking to the muscles of her abdomen. She had to have a whole team of surgeons facilitate this separation due to this complication which could have been life threatening for Madlyn. We observed similar dynamics play out in the post-natal environment too during the infant observations, with Madlyn having difficulty separating from her baby Ulrich, trying to maintain rigid control over him.

On the other hand, it was inferred from Kayla’s statements during her interview (ch.7.4.), that a phantasy of the “ghost baby” was haunting her psyche and her womb. She had

⁴ Madlyn could not have a vaginal birth because her previous pregnancy was delivered with c-section which meant she could not have a vaginal birth the second time around, although she desired vaginal birth both times.

miscarried a joyously awaited pregnancy and before being able to process or even acknowledge this loss, she got pregnant again. The doctors had denied the existence of this second pregnancy for a long time, calling it “retained products” and telling her to stop taking pregnancy tests. She had bled during the first trimester too. Kayla stated in her interview that she had difficulty recognising and making an investment in this new pregnancy until her 20-week anomaly scan but said she had turned a corner and became happy and excited again about her foetus, after she learnt that it was healthy. Unfortunately, she had a traumatic birth experience where she had to have a c-section when birth started but she was not dilating. The operation itself went well, Kayla reported, but post-operatively there were many complications with her being in danger of sepsis. When she went back home, she started bleeding and the doctors found what she called “retained products” in her abdomen from the operation, a mistake of the surgeon (ch.8.4.).

We have no way of knowing what the doctors used to describe this operative mistake, but it is quite meaningful that Kayla used the phrase “retained products”. I wondered, even if some working through was made after 20 weeks of pregnancy, did this traumatic birth experience give new life to the “ghost baby”, strengthening the paranoid anxieties Kayla had during the early and middle parts of her pregnancy? As discussed, we saw this paranoid anxiety in the post-natal environment too which did not decrease in strength until baby Briony became more mobile, her mobility perhaps becoming evidence to her wellness, much like the anomaly scan.

9.1.4. Use of Countertransference

An important tool in understanding the pre-verbal material in the infant observations was my countertransference. For this study, countertransference has been understood as a tool that has helped me to understand the unconscious material coming from both the mother and

the infant (de Rementeria, 2011, 2021; Heimann, 1950; Miller, 1989), instead of an obstacle or hinderance to my understanding. Including my countertransference alongside the observational material to be analysed has meant that I was able to pick up on communication that might not have been readily available from purely analysing what was observed in the external reality of the infant observations. My countertransference was included in the observational notes and was taken to infant observation seminars and to discussion with my supervisors to open up a triangular space (Britton, 2004) in understanding it's meaning and exploring what it might tell me about the mother and infant.

For three infants, my countertransference helped me piece together and start to speculate about their experiences and how they might relate back to the prenatal environment. A strong countertransference I had, was the absurd feeling that baby Ulrich was fake, like a doll. I was reminded of the TV show "The Servant" (Shyamalan, 2019-2023) where an infant was replaced by a fake doll after the mother accidentally killed it, but the doll was brought to life by the help of a young female nanny. This feeling of fakeness and my free-association to the TV show, helped me make sense of what was going on in this family, between mother-infant-sister. I speculated whether this fakeness was the experience of baby Ulrich, he certainly had difficulty controlling his body, falling over like a doll would when he was not physically held. Interpreting Madlyn's statements from her interview along with the observational material and my countertransference, it was inferred that Madlyn had a deep-seated fear of her baby dying and as we saw during the infant observations, she relied on her daughter to help enliven both her and her baby.

During the infant observations with baby Olivia, Gemma's daughter, I had many, strong countertransference feelings which helped me understand both mother and daughter. My feelings clustered around the umbrella of avoidance: I was having difficulty writing up my

observation notes, focusing during the observations and having general feelings of discomfort and wanting the observation to finish. These feelings were accompanied by a sense of sadness and frustration when I was often “left in the dark” when Gemma would put Olivia to sleep during the infant observation (ch.8.5.). In my seminar group and my analysis of my observation notes, I concluded that my feelings of avoidance and difficulty could be an unconscious communication from Gemma on how she was feeling as a mother. I hypothesised that it was difficult for her to exercise the spontaneity she never experienced in her own mothering which produced conflictual feelings such as envy, anger, and helplessness that she avoided by putting Olivia to sleep in times of frustration. The observational material aided by my countertransference and knowledge of statements made by Gemma in her interview, showed the possible repetition of intergenerational patterns with baby Olivia. A repetition in the swing between sadness and anger in reaction to a mother who was having difficulty coping with a real baby and with becoming a mother, much like the mother Gemma described having in her own childhood (ch.7.5.).

While observing baby Briony and Kayla, when mother-daughter would not be in the direct view of the camera for whatever reason, I was left with a deep fear of being forgotten. Not sure how to make sense of this fear, I went to my infant observation seminar and presented an observation of Briony and Kayla. My peers were left with a sense of confusion after my presentation, telling me that they had difficulty following the material about who the mother and infant were. Trying to understand the fear I had come to the seminar together with my peers’ confusion, we started to speculate if this could be the “ghost baby” making its appearance again? We wondered if this fear and confusion might be baby Briony’s experience too? Thinking about Briony’s liveliness and her difficulty in achieving satisfaction from feeding or play as seen in infant observations, together with my countertransference feeling of

fear, I interpreted that Briony was constantly reacting to her environment to prove her liveliness and counteract a fear of death, a legacy of the “ghost baby”.

9.1.5. The irresolvable tension between pre- and post-natal environment

The biggest challenge I was faced with when embarking on this research was twofold: not being able to directly observe the foetus and its psychic development thus having to infer these dynamics from the postnatal environment at 6 months-old which created the issue of the irresolvable tension between the pre- and post-natal environment. What is meant here by this tension is the difficulty of clearly understanding *when* some of the ways of relating and behaving of the infants I have been discussing can be traced back to. As was observed and inferred from the infant observations, most mothers seemed to continue their phantasies and anxieties belonging to the prenatal period in the postnatal environment. This meant that it would be virtually impossible to clearly understand and build a model of causation belonging solely to foetal experience. We have no way of knowing exactly how the pre- and post-natal environment interacted with each other, but we can speculate on and start to build knowledge about whether the ways that the infants behave and interact with their environment might have prenatal origins.

What I saw to be the biggest clue into the prenatal origins of behaviour and ways of relating was the presence of very early feeding and dermatological problems along with issues of the infant building a core self (Stern, 1985) which could be seen with issues around bodily autonomy and rigidity of some psychic defences; even when the postnatal environment was changing the infants seemed to repeat what they had ‘learnt’ in the pre-natal environment. We perhaps saw this most clearly with baby Ulrich who had a plethora of somatic issues, he had problems with feeding, emesis, skin rashes coupled with a lack of explorative energy towards the world with difficulty in understanding his bodily limits. My interpretation of observing

baby Ulrich and his difficulties was that some of these problems might have to do with the fears that Madlyn had during her pregnancy and how she dealt with them; her passivity and need for symbiosis to gain resilience. These dynamics were only deepened due to this being Madlyn's second pregnancy which was permeated with these fears due to very real external events. Of course, we should not underestimate the effects of Madlyn's need for rigid control over her infant once he was born coupled with the traumatic birth experience which left her with immense pain for many months which must have only added and deepened the effects of foetal experience, bringing us to the issue of the irresolvable tension between the pre- and post-natal environment.

The presence of this tension was present for all mother-infant duos but with all of them, we could find traces of what was fantasised for the foetus/infant to help mother form a relationship with them and not get overwhelmed in the mothering encounter. The effects of these prenatal phantasies were seen to be still relevant and prevalent in the post-natal environment observed but this does not mean that the effects of it on the infant only came from here. From the findings of this research, we can speculate about the presence of foetal experience and the effect of maternal phantasies on it. These foetal experiences laid the ground for the emergent self of the infant and the continued experiences postnatally, deepened its effects as each stage of experience builds upon itself.

It is important to note here that none of the mothers suffered from severe emotional problems or gave their infants grossly neglectful or abusive environments. Objectively 'bad' environments were not present during pregnancy either for any of these women as they all were from privileged backgrounds and environments, having planned to become pregnant. I do not expect any of these infants to go onto have severe emotional problems.

9.2 The Use of Technology

This study was conducted during the COVID-19 pandemic, an unprecedented time both for the world and the method of doing infant observation. While obtaining the ethical approval for this study, England was in full lock-down and it was advised by the University of Essex's ethical approval team that I could not conduct my interviews or infant observations in person, even with wearing a mask inside or outside. Thus, both legs of the study had to be conducted online, via the platform of Zoom.

Having to conduct my study online had its advantages and disadvantages. The biggest advantage was the fact that I could have participants from different parts of England and the world. Where my participants were based varied, giving the study a cultural heterogeneity which was much needed as my participants were homogenous in terms of their level of education and general socio-economic background.

When semi-structured interviews were conducted, the COVID-19 pandemic was still at its height, with vaccines not rolled out yet. The interviews being conducted online did not prove to be as big of a disadvantage as having the infant observations online, although a disadvantage that is important to note is the difficulty of not seeing non-verbal cues that the participants might have been displaying. With all interviews held in Zoom, I could only see the participants' bodies from the shoulders or chest upwards. This meant that important information about the mothers' state of mind and emotions as evidenced by how they occupied space and used their bodies, might have been missed.

When it was time to start the infant observations, the COVID-19 pandemic had eased with the roll out of vaccines but because of the conditions of the ethical approval and with my participants being in many different locations, the infant observations were conducted online. With the pandemic easing and lockdowns being a thing of the past, the mothers reported less

loneliness with their babies compared to the time of their birth. Conducting the infant observations online did prove to have many different complexities although having access to mother-infant pairs from many different locations was still an advantage.

The first difficulty encountered was the practice of conducting infant observations online and the question of what the best practice was. With the infant observations starting late 2021/early 2022, there was still debate on if infant observations could be conducted online and their many disadvantages (Klauber, 2020) and journal articles on experiences and reflections of trying to conduct online infant observations just coming out (di Pasquale et al., 2021; Gatti, 2021).

A big limitation that was encountered was the fact that sight and sound were the only senses that could be used, giving only a partial picture of the infant's mental and physical development that could be missed with the absence of the other senses. As Gatti (2021) puts it, "[y]ou don't breathe the infant's air" (p.54). In addition to losing half of our senses that would help us experience the observation, a sense of space is lost too. The distance we have from the infant is moderated by the mother with where the device is put and the positioning of it, rather than the infant approaching or moving away from the observer (Gatti, 2021). We do not get a full sense of how the infant relates to the observer and builds a relationship with them although, all infants observed built a relationship with the camera/the device the camera was in. There still remained the question here, and it was not asked to the mother, whether the screen of the device was showing the observer or a mirror image of the observation (both of which is possible to select on the platform of Zoom). What we see is partly controlled by the mother as she gets to choose what angle we see her baby or the two of them. This is a disadvantage but also at times, gave us information about the mother and her possible anxieties we might not see during an in-person observation. These anxieties like, a need to be seen (as we saw with Sarah) or

desire to hide (as we saw with Gemma) have been discussed in chapter 8. The possibility of this added information could be considered an advantage

An important consideration for online infant-observation is the fact that the device that holds the camera is something to be maintained; the angle of the camera, checking if they are in the view of the camera, it's battery, problems with the internet, to just name a few. This may make it more difficult for the mothers to relax into the natural relationship with their infant. This need to maintain the observation may trigger different feelings in the mother ranging from feelings of omnipotence, with having control over the 'existence' of the observation, or resentment towards the dependency of the observer, like they may feel towards their infant.

The observation itself starting is also controlled more by the mother. The observation starts when the mother logs onto the Zoom meeting, not when the observer arrives at the home of the mother-infant. Lateness to or 'forgetting' the observation could both be used defensively, like we saw with Carla (Ch. 8.2.), Kayla (Ch. 8.4.) and Gemma (Ch. 8.5.). Please refer to the relevant chapters for further discussion of this. Both dynamics of maintenance and control are considered as a disadvantage but how the mother 'uses' them may give us precious clues about her internal world that we otherwise might not have seen.

It was reported that observers became more active during online observations in pandemic, partly to make up for the disconnect felt by this mode of observations but partly fuelled by the isolation felt by mothers during the pandemic (di Pasquale et al., 2021). This was true of my experience of online observation, especially with a question I was frequently faced with of, when to intervene? Since I was not occupying the physical space of the mother-infant and could not follow them either physically or with my eyes, I was dependent on the mother for finding an angle where I could see their infant or the mother-infant pair. It was a complexity that there was not much precedence for how to intervene in instances where the mother-infant were out of the camera's frame and me intervening would disturb the natural

setting of the observation and sometimes force the mother to give-up a possible unconscious defence, of wanting to escape the gaze of the observer. A method adopted here, and discussed with my seminar group and leader, was that I would wait for a short period of time to see if the mother-infant would come back to the camera's frame and when this was not the case, inform the mother that I could not see them.

Overall, the presence of the screen and the meaning given to it by each mother and infant differed according to the mother's own personal history and her relationship with the infant. The online setting of observation brought to surface many different dynamics and sometimes conflicts that might not have been present in an in-person observation. For some mothers, the dynamics of having an online observation intensified the state of affairs. This was most notable for Gemma (Ch.8.5.) where it was inferred from Gemma's reactions to the camera during observations that she felt both persecuted by the presence of the camera but also intensely jealous of it and the 'attention' that it represented when her daughter would try to interact with the camera. Please refer to chapter 8.5. for further discussion of this case.

9.3 Role of the observer

How we can understand the findings of this study, is partly situated in who the observer is. For this study, but also for the method of infant observation used in it, the mere act of observation and being an observer influences what is being observed. Meaning, the researcher/observer will have an effect on the research/observation and what is perceived from the observation. Thus, we cannot speak of a disembodied observer in me while conducting this research, as I was interacting with the mother-infant even if I was not *intervening*.

The researcher being a Turkish woman, in her early 30s, doing a PhD study on pregnancy and early infant development colours the transference and expectations of the participants, making certain projections more readily available than others. For example, it was

seen that the two participants who had a similar cultural background to me, talked more about the cultural expectations put on them as a woman and as a mother. This could have had to do with the fact that my country of origin has stronger gender-normative roles which put immense pressure on women but also, the participants knowing my country of origin from my name and the language spoken between us, could have also helped the participant feel like I could more readily understand the feeling of being a woman in a particular setting. The latter claim was also seen in the interview with a participant, who was from a different cultural background than me, who frequently said “I don’t know if you know but...” while referring to particularities of her childhood, signalling that she was feeling the opposite way of not being sure if I could understand her.

Another way I observed the effect of the facts of who I was as the researcher/observer was during the infant observations of Carla (Ch.8.2.) and Madlyn (Ch.8.4.). Both women frequently asked me questions about infant development throughout the infant observations with Madlyn asking me for a report of her ‘performance’ as a mother in the end, with tips for becoming better. Of course, we cannot only reduce the reason of the mothers’ attitude towards me to one denominator, but I believe me being situated as a possible ‘expert’ in the field of infant development, signalled by the topic of the research, could have made it easier for these women to project the role of the ‘mother that knows’ onto me and ask for help.

Using our emotions as tools in infant observation is another factor that makes it important to disregard the possibility of a disembodied observer, even make it undesirable. Using our emotions as tools, helps us understand the different mother-infant pairs better with an ability to access unconscious communications. Personal responses and the countertransference of the observer was included in the observational notes, reflected upon individually and with the seminar group to help establish if it was informing us about the

unconscious of the mother-infant pair, and used to understand the pair better and help infer their internal states.

After discussing if and how the observer contributes to the observer-observed relationship, it is important to talk about how the observed interacts with the observer. With every infant observation, there will be unconscious parental expectations of the observer and motivations for participating in the observation, ie. what the observed 'gets' and 'desires' from the observer. This fact makes examining the relationship between the observed/mother and observer very important as in this relationship, there is a transference of internal representations of the self and others, onto the observer (Klauber, 2022).

The fact that the observations were held over Zoom had an immense impact on my role as an observer. Being an observer on Zoom, an online platform, on the most basic level meant that my presence was different than the classically prescribed one of the Bick method (1964). Beyond this, what I inferred from how the participants related to me during the observations was that it was somewhat easier for the mothers to project their needs, desires or phantasies onto me. This might have stemmed from the fact that the observer the participants were interacting with, was not a three-dimensional human being, but an image of one on the screen of the device they were using. With the lack of being a body in the room, I had much less control and presence in it. The mothers could 'carry' me around or 'take me' to places whenever they desired or needed to. This dynamic might have created a phantasy of omnipotence, pitted against the possible sense of helplessness that the absence of my physical being might have created in both mother and infant (Gatti, 2021).

I believe it was the sense of control over the observer via the screen, that made it easier to project onto the observer, making the observer an object to be used in phantasy. For Carla (Ch. 8.2), I inferred from how she related to me in the observations that I became an ally in her loneliness, someone to talk to about herself and her baby and try to get some reassurance about

her mothering. For Gemma (Ch.8.5.), again I inferred from how she related to me in the observations but also from my countertransference that my presence and role of observer was quite persecutory, almost like CCTV. How she dealt with the anxiety that was triggered by these projections was by darkening the observation scene by putting baby Olivia to sleep or by prohibiting baby Olivia from interacting with the screen. Other examples of this are Sarah (Ch.8.1.) and her need to 'be seen', inferred from both her statements in her interview but also her frequent checks to the screen, to make sure she was in the frame. It was fascinating to see that as her relationship with baby Henry improved, her need to check the screen to see if she was in frame decreased.

All these compelling examples give us evidence about how the camera and me as the observer, became a mirror (perhaps even literally if the screen was selected to mirror the observation scene!) to the hypothesised needs and conflicts of the participants which they avoided, attacked, or achieved reparation through.

9.4 Implications of findings

9.4.1. Experience of pregnant women/mothers

How can we understand our findings in relation to previous theories and empirical research along with how these findings can move us forward with a better understanding about maternal phantasies and foetal experience? One of the main findings was the function of protective phantasies, both for the emotional wellbeing of the pregnant woman but also development of the foetus and later infant. It was seen that protective phantasies facilitated the building of a relationship between the mother and infant pre- and post-natally with the absence of protective phantasies seeming to be predictive of difficulty bonding in the post-natal environment (Ch. 8.5.).

This finding was in line with many points of discussion in the literature review. Many different theories (Baraitser & Noack, 2017; Brazelton & Cramer, 1991; Parker, 2005;

Rabuzzi, 1994 Raphael-Leff, 1993, 1995, 2004) had shown us the importance of maternal ambivalence in building a relationship with their child during pregnancy and after birth and that this maternal ambivalence had a relationship with the quality of postnatal care (Raphael-Leff, 1993, 2004). This meant that if the mother was able to experience her foetus as both depleting but at the same time comfortably co-existing, she was more likely to be able to tolerate the difficulties of a real baby.

A prerequisite to being able to hold and tolerate this ambivalence was how the mother perceived herself and her foetus (Raphael-Leff, 1993, 1995, 2004). If the mother had a conflictual relationship with her own mother, the desire to mend this in phantasy during the experience of pregnancy and the relationship with her infant could arise (Brazelton & Cramer, 1991; Pines, 1981). We saw this desire with some of the participants like Kayla and Gemma. What was interesting here and was an unexpected finding for the study was the fact that the more investment made towards this transformation, the more likely it was that instead transforming the relationship, the intergenerational patterns would be repeated. Rabuzzi (1994) tells us high expectations about the meaning of a pregnancy does produce disappointment when meeting the 'real' baby, which we saw with Carla (ch.8.2.). What we saw with Kayla and Gemma was different than what Rabuzzi (1994) had theorised and was closer to Raphael-Leff's (1993, 1995, 2004) theories about the primitive needs and narcissistic vulnerabilities that pregnancy may trigger in pregnant women and how they might get acted out in the postnatal environment.

The identification with the foetus when pregnant, if a conflictual relationship was present with the pregnant women's mother, may trigger heightened dependency needs or feelings of envy with experiencing the foetus like a sibling (Raphael-Leff, 1995). The heightened dependency needs for Kayla and the envy experienced by Gemma created an

environment for their infants where reaction and adaptation to the needs of the mother was needed.

The image mothers had of themselves also influenced how they would experience their relationship with their foetus and later infant, especially when combined with the perception they had about their foetus (Pines, 1981; Raphael-Leff, 1993, 1995). If the mother had a negative image of herself, we saw that this had an effect on how she would experience her pregnancy and the post-natal relationship with her infant. We saw this with Sarah and Henry where Sarah had a negative image of herself and experienced her foetus as being disruptive too. This was continued in the postnatal environment where mother and infant continued rejecting each other. This pattern only changed when the infant made a spontaneous move towards his mother. This gave us a clue about how important the mother's image of herself is. When a mother has a negative image of herself, she is more susceptible to feel rejected by her infant. This means that she may not show the needed perseverance while feeding or playing with her infant, creating a vicious cycle of rejection and deprivation. This cycle was also seen with Gemma and Olivia but a space for reparation had not been achieved during the observations. This proves to us again the importance of the mother building the internal structure of the good object, before birth, and experience herself as 'good' too to be able to experience maternal ambivalence (Parker, 2005) as the absence of this can further entrench problems in the postnatal environment and how the mother interacts with her infant.

9.4.2. Experience of the foetus/infant

Winnicott (1980) had proposed that there was the possibility of false and unhealthy development intrauterine if the foetus had to react to its environment and he theorised that because there is no ego development possible at such a primitive state, this reaction cannot

come without a loss of identity. Evolutionary psychologists (Verny, 2021) seem to agree with what Winnicott was speculating here, saying that foetuses come into the world with a certain set of expectations, adapting to the outside world that they expect to survive in it. Neuropsychology studies have also confirmed these theories in recent years with fascinating findings about how the brain changes in reaction to maternal stress. It was seen that maternal stress had serious consequences on emotional development and fear responses and if pregnancy was dominated by emotional difficulty for the mother, poor emotion regulation of the baby continued even when these difficult conditions cease to exist (Lange, 2011). Another fascinating study showed us that rodent foetuses who were subjected to prenatal stress showed an increase in adaptive responses and better problem-solving abilities once they were born (Palleres et al., 2007). It seems that foetuses ‘get ready’ for the world that they experience intrauterine and might have difficulty changing these expectations if the postnatal environment is different.

The findings of this study are in line with these theories and findings from neuropsychology research, showing us how the infants that were observed seemed to have identified with what the mother was experiencing and ‘expecting’ whether consciously or in phantasy. We may say that the foetuses were trying to adapt to what they experienced as being the external environment they would be born into and ‘learn’ *who they had to be* to survive in it but as Winnicott (1980) proposed, a reaction or adaptation at such an early stage does not come without a loss of identity. How can we understand what Winnicott means by identity here and how do we observe it in the postnatal environment?

If we take the baby as building its identity or sense of ‘self’ with the mother, using and testing out his emotions and motor skills on her and with her, we might say that a lack of exploration towards the mother and the environment might be one of the first clues. Here, what I believe causes later emotional difficulties are the difficulties in the postnatal

environment but, the expectations that are carried from the prenatal environment might be one of the reasons why these difficulties arise in the first place and get deepened with the interaction with the postnatal environment/maternal difficulties that heralded the expectations.

Looking out for somatic issues like feeding difficulties, food allergies and eczema or imitative and ritualistic behaviour that might resemble infantile defences mechanisms (Fraiberg, 1982) that are present from birth or come about with important developmental milestones. The presence of infantile defence mechanisms can be helpful in identifying prenatal issues that might have been carried to the postnatal environment. Foetuses react to their external environment and use their body to soothe anxiety (Maiello, 2001) and we see ‘memories’ of this in the postnatal environment not as remembering in the traditional sense but as experiences in the body with infants trying to soothe themselves and gain mastery of an uncontrollable situation using their body (Piontelli, 1992).

If we are able to recognise very early signs of emotional difficulty that might have its origins in the prenatal environment and in the interaction between the pre- and post-natal, early interventions might make quick and tremendous changes. As we saw from the findings of this study, when the good object is restored within the mother, it helps the baby to start in building this structure too which can be seen with the baby showing more of a push towards exploration and paradoxically when the baby is able to express frustration towards the mother and environment, instead of avoidance (Norman, 2004; Salomonsson, 2016). Subtle changes within the mother-infant dynamic can transform this relationship but with infants who do not show interest in exploring their environment after the age of 3 months—but more crucially after 6 months—and infants who do not show much bodily autonomy after 6-7 months can benefit from parent-infant psychotherapy (Lieberman, 1992).

9.4.3. Wider implications of findings

Thinking about foetuses being able to ‘feel’, have ‘experiences’, and ‘memories’, carries significant social and political implications that require further consideration. Theories on foetal life and sentience can be traced back to Aristotle who studied different stages of pregnancy and foetal development through dissection of various pregnant animals and human embryos. He proposed that independent existence does not start at physical birth, and that sentience emerges around the time that the foetus begins to move, at approximately 16-20 weeks of gestation. Despite these early theories, at the time, foetuses gained broader social and political attention only after birth, with abortion being widely practiced through various methods. While husbands could theoretically appeal against their wife’s decision to terminate a pregnancy, this was framed in terms of property rights rather than concern for foetal life (Piontelli, 2024). The emergence of institutional religions brought the question of ensoulment and when one becomes God’s creature in need of protection with a right to live. While some traditions located the moment of ensoulment at birth, others argued for conception. These debates were not confined to Western contexts but appeared across cultures. During the Age of Enlightenment, there was a move back to scientific inquiry about the foetus and foetal life, with practices of human dissection and the study of uteruses and embryos to understand it. Slowly, male doctors took over the care of pregnant women and child delivery, putting the knowledge that midwives had accumulated over centuries in an inferior position. With this move and over the next three centuries, the male fascination with the female body and its ‘contents’ only increased. Although this interest and the scientific inquiry that came with it drastically improved women’s reproductive health, it also gave rise to the question of whether the pregnant woman or foetus’s wellbeing took precedence (Woods, 2009).

The rise of social, political, and medical movements championing foetal rights above women's choice, and medical tragedies like the Thalidomide scandal⁵ in 1961, prepared the environment for pregnancies and pregnant women being heavily controlled and scrutinised. The Thalidomide scandal prompted stricter pharmaceutical regulation and increased attention to the vulnerability of foetal development. While these developments improved safety standards, they also contributed to a broader cultural context in which pregnancy became subject to heightened scrutiny. As understanding of placental function and foetal development grew, so too did the public and medical interest in regulating what pregnant women should eat, drink, and do, increasingly framing maternal behaviour as a matter of collective concern (Fissell, 2025; Piontelli, 2024).

After the historic *Roe v Wade* Supreme Court ruling in the USA in 1973 that made abortion a constitutional right for women, changes in reproductive rights emerged in other countries. Due to the ruling's ripple effect globally on the conversation around reproductive rights, it became a catalyst for reform movements arguing that safe abortion is a fundamental human right. Nevertheless, reproductive rights remained a deeply divisive subject, especially in religious and conservative groups, and in the last couple of years, we have seen a return to earlier understandings of reproductive rights with the overturning of *Roe v Wade* in the USA in 2022 (Cole, 2025; Johnson, 2024).

The notion of protecting the future good 'citizen' is often invoked in arguments that prioritise foetal rights in the name of societal wellbeing. However, this framing risks obscuring the conditions necessary for such an outcome. The wellbeing of future members of society cannot be separated from the wellbeing of their mothers. Supporting maternal physical and

⁵ Thalidomide was a sedative which was prescribed for symptoms such as anxiety, sleeping difficulties, and morning sickness. While the medication was originally regarded as safe for use during pregnancy, thousands of babies were born with severe deformities due to its use, such as stumped limbs (phocomelia), malformed organs, deafness and blindness. Around 40% of these babies died shortly after birth, while the ones that survived had severe restrictions to their quality of life.

emotional health, and respecting women's autonomy in decisions about their bodies and futures, are essential components of any vision of a healthy society. Empirical research (Donohue & Levitt, 2020) supports this view and show that legalised abortion has a positive correlation with the wellbeing of society, measured by lower crime rates. In their landmark study, Donohue and Levitt (2001) present evidence that the legalization of abortion with the Roe v Wade ruling in 1973, accounted for the sharp decline in crime rates over the following three decades in the USA.

The findings of this thesis, which explore the continuity between pre- and post-natal life, and the potential influence of a pregnant woman's emotions and unconscious phantasies on her foetus—implying foetal sentience—must be interpreted with caution. One possible misapplication of these findings would be to extend existing expectations placed on pregnant women, suggesting that they are responsible not only for their behaviours but also for their thoughts and feelings. Such an interpretation risks intensifying the already burdensome forms of moral regulation and surveillance placed on pregnant women. Rather than supporting this position, the findings of this thesis argue the opposite: that recognising such continuity underscores the importance of supporting pregnant women, rather than constraining them.

Psychoanalytic theories of motherhood (Baraitser & Noack, 2007; Parker, 2005; Raphael-Leff, 1993, 2004) show us that it is not a matter of *if* we have conflictual feelings during pregnancy and motherhood, but that it is a matter of *if we can consciously recognise them*. From this perspective, the task is not to regulate maternal feelings and thoughts, but to create conditions in which they can be expressed and processed. Encouraging pregnant women and mothers to articulate the full range of their experiences—both positive and negative—can mitigate emotional distress and support the relational and emotional development of their infant.

This understanding also extends the concept of maternal ambivalence (Parker, 2005), beyond pregnancy and later motherhood. If maternal ambivalence is understood as the capacity to hold conflicting feelings about being/becoming a mother, then it logically includes the period in which a woman is deciding whether to become a mother. In this light, maternal ambivalence can be traced back to reproductive decision-making, rather than emerging only after conception. In practice, such an extension depends on the protection and promotion of reproductive rights, including access to contraception and safe abortion which would enable women to engage meaningfully with the question of whether they wish to become mothers.

What was initially believed to be the biggest limitation of this study and its design was the irresolvable tension between the pre- and post-natal environment. Why the past tense is used in this specific section is because the findings of the thesis have demonstrated that trying to disentangle the relationship between pre- and post-natal life is unhelpful and in the context of the emotional and relational development of the infant, not needed. The main finding of this study is that we need to understand foetal experience and emotional and relational development of the infant, in the context of the pregnant woman/mother's experience. The foetus/infant cannot be an independent object of study as we would be missing the vital context of said development, without studying the context of the mother's emotional world in just as much detail.

Dangers of psychoanalytic certainty for this study

Stephen Frosh and Lisa Baraitser (2008) caution against the dangers of psychoanalytic certainty when psychoanalytic theory is used within qualitative research to arrive at claims about "the" truth of participants' subjectivity and experience. They argue that reflexivity must extend beyond simply stating one's positionality, to include a sustained practice of tentativeness in interpretation. This involves resisting the impulse to move too quickly from

data to meaning and instead approaching psychoanalytic interpretations as provisional and plural rather than definitive. Without such caution, there is a risk that the researcher adopts a position of authority, presenting themselves as an expert capable of uncovering psychoanalytic “truths” about the psychic realities of participants.

This warning is particularly pertinent in the context of this study. Given the ethical and political sensitivities surrounding pregnancy, foetal life, and maternal responsibility, there is a heightened risk that psychoanalytic interpretations could be mobilised in ways that inadvertently reinforce judgement, surveillance, or normative expectations placed on pregnant women. The findings presented here should therefore not be understood as revealing fixed or objective psychoanalytic truths. Rather, they are co-constructed between the researcher and the researched, between me and the pregnant women, mothers, and infants who form the basis of this study. In this sense, the knowledge produced can be thought of as a “third,” akin to the analytic third described by Thomas Ogden (1994), emerging relationally rather than residing in either participant or researcher alone.

At the same time, it is important to acknowledge that in any written account, the researcher’s voice ultimately occupies a privileged position in shaping how findings are presented and understood. This asymmetry underscores the need for ongoing reflexivity, particularly in a study engaging with a sensitive and politically charged topic. The act of interpretation always carries the potential to impose meaning, and this risk is amplified when drawing on a theoretical framework such as psychoanalytic theory, which makes claims about unconscious processes that cannot be directly verified. For this reason, the interpretations offered in this thesis are intended as openings for thought rather than conclusive statements and should be approached with the same caution and tentativeness that informed their development.

The place of culture in pregnancy, motherhood, and infant development

An important topic that has not been discussed in depth in this thesis is the role of culture and its interaction with how a woman may experience pregnancy and becoming a mother. Culture remains a significant determinant of how a woman will experience being pregnant, the choice to remain pregnant, and becoming a mother, as well as her practices in how she mothers her infant (Music, 2017).

All 5 of the pregnant women/mothers who participated in this research, were highly educated, held highly skilled professional jobs, became mothers in relative economic comfort, and had the social support of their partners or wider family who were inferred to be liberal in their social and political beliefs. Even though all participants did not come from the same cultural backgrounds—their countries of origin spanning from East to West Europe—there were no significant differences in the perception and practices of pregnancy and motherhood in their country of origin. Within this context, there was a conscious choice not to take culture as one of the central themes of discussion to understand the different experiences of the participants in relation to their pregnancy and becoming a mother.

This omission and the relatively limited discussion of culture in relation to the research subject, is taken as a limitation, especially as the pregnant women/mother's experiences of their culture and its possible effect on their perception and experience of pregnancy and motherhood, was not explicitly inquired during the interviews. Not having this as a separate area of inquiry may have prevented me from seeing this important dimension for the research subject. It would be important for future iterations of this research, to incorporate explicit inquiry about the role of culture in pregnancy and motherhood during interviews. An active effort to recruit participants from more diverse cultural backgrounds could also allow future research to capture the effects of culture on perceptions and experiences of pregnancy and becoming a mother.

Chapter 10: Conclusion

10.1 Summary of thesis findings and contributions

This thesis contributes to the discussion of how we can understand the relationship between maternal phantasies and experiences during pregnancy and early infant development which was identified as a gap in the pre-existing literature. Findings comparing the interviews held with pregnant women and infant observations with their infants at 6 months old, show us a relationship between mother's experience during pregnancy and early infant development as seen by the infants' reactions to their environment and use of infantile defence mechanisms. These reactions and defences were postulated to be influenced by maternal phantasies during pregnancy, with foetuses identifying with these phantasies in utero. It was hypothesised that prenatal identifications influenced the emergent self (Stern, 1985) of the foetus which impacted how the later infant interacted with his environment. This had knock-on effects on later developmental stages of building of the core and subjective self which make up the rudimentary psychic world of the infant and determine the relational matrix that he occupies. Infantile defence mechanisms (Fraiberg, 1982) were identified as being particularly important, as they helped the infant keep up with the 'demands' of the phantasies of their mother, mostly by building a shell of self-sufficiency with second-skin defences (Bick, 1968; 1986).

The analysis of data coming from the interviews with pregnant women, showed us that mothers had differing representations of how they experienced and fantasized about their foetuses. For the most part, these representations or phantasies about their foetus contained the good and the bad together; the negative representations were mostly to do

with adverse experiences that were experienced during or right before the pregnancy or to difficulties that the mothers experienced in their own childhood. The positive representations, which I named protective phantasies, seemed to counteract these negative experiences, and helped the mother to both cope with the anxieties she was experiencing and to make sure that a relationship was being built with the foetus/infant through the internal representations that these phantasies were creating or transforming.

A significant finding of this thesis was the protective phantasies that mothers equipped themselves with and the function of these phantasies. Raphael-Leff's theories (1983, 1991, 1993, 1995) on becoming a mother and difficulties associated with it, was the greatest inspiration for the construction of this concept. Findings from interviews and infant observations in this thesis has shown us the importance of the painful process of re-alignment of one's identity and the function of protective phantasies in this journey. We saw that mothers equipped themselves with these protective phantasies to contain anxieties about their past and here-and-now adverse experiences of pregnancy.

What was fascinating to see during the infant observations was that the foetuses and later infants seemed to identify with these protective phantasies that the mothers constructed to help contain their anxieties around motherhood and to create a positive relationship with their foetus/infant. This observation was in line with theories of evolutionary psychology (Verny, 2021) which tell us that foetuses adapt to the world they expect to live in and that this adaptation that takes place in utero increases their chances of survival. It was inferred that the foetuses adapted to the *emotional world* that expected to live in. This was true of the infants observed who seemed to identify with the phantasy baby that was constructed within the protective phantasy of their mother. This identification and the adaptation it facilitated was seen to contain the anxieties of the mother. Mothers displayed similar worries to the ones they reported in their interviews during the infant observations, reverting to the

same defence mechanisms (of which the protective phantasies were a part of) that they equipped themselves during their pregnancy.

The identification with the protective phantasies of their mothers needed varying degrees of compliance and reaction from the infants. Said need for compliance and reactivity appeared to disturb the spontaneity of the infants which was seen in the use of second skin defences (Bick, 1968) during the infant observations. These infantile defences helped the infants stay within the needed identifications which accommodated the relationship with their mother and the nurture coming from her, helping the infants deny frustrations which might have arisen from their adaptive attempts. The quality of the second skin defences differed according to the needed accommodations varying from constant activity to stillness.

The anxieties of the participant mothers, how these anxieties played out in the relationship with their infant and the transformative opportunities that arose during their mothering relationship highlighted the importance of maternal ambivalence (Parker, 2005). A mother's ability to both love and hate their foetus/infant was seen to be predictive of how flexible they could be in their mothering. This flexible and at times creative mothering facilitated spontaneity in their infants too where we saw less use of second skin defences with a lesser need for self-containment.

The importance of maternal ambivalence also highlighted the importance of building positive internal representations of the mother's self and working through issues about her own mothering before pregnancy or birth. Having positive internal representations were predictive of the ability to experience maternal ambivalence which required less reacting and adapting from infants. Although it was seen that mothering could act as a reparative opportunity and transformative experience for the building of these positive internal representations, having not built them before pregnancy and birth did have implications on the emotional development of the foetus/infant. These implications were seen in the infantile

defence mechanisms (Fraiberg, 1982) equipped during early months of life, as observed in the infant observations.

An important conclusion derived from the findings was the irresolvable tension between pre- and post-natal life and the infinite interaction between them. Although we cannot draw a causal relationship between prenatal life and the early emotional development of the infant, we were able to see some clues into how we may see prenatal qualities in the way infants functioned in the postnatal world. The rigidity of infantile defences, even when the quality of the postnatal world changed, gave us clues into how the infant may be operating on the blueprints of the external world they might have predicted from their foetal experiences. These foetal experiences seemed to be influenced by maternal experiences and phantasies. Another important clue we have for prenatal influences as observed in the postnatal world was the presence of somatic issues like gastrointestinal problems, weight gain issues, allergies, and eczema in early months. Lastly, issues around play, feeding and exploration of the external world appeared to have links to prenatal experiences. The infants who were ambivalent about feeding, who could not play or those who showed apathy towards exploring their environment might have a negative preconception of the world due to negative foetal experiences. It was hypothesised that an inability to play and apathy towards the environment were indicative of graver and more primitive problems.

10.2 Limitations and recommendations for future work

There has been extensive discussion of the limitations and the scope of this research in almost every chapter due to the nature of inquiry and the subject matter of this project. The main limitation predicted for this PhD project and its methodology is the fact that, just like speculating about the first months and years of life of the infant, theorizing about prenatal life and the experiences of a foetus can only be done inferentially. This reality and

the limitation that it presents was further exacerbated by the fact that pre- and post-natal life interact with each in the post-natal environment which makes it difficult to pick apart what we can attribute solely pre-natal environment versus and what came from to pre-natal environment and interacted with the post-natal, deepening or strengthening its effects. Nevertheless, detailed discussion has been made around material that explores the possibility of foetal experience and what was being ‘remembered’ about the intrauterine environment by the infant. In line with the literature, a conclusion we arrived at was that foetal experiences were ‘remembered’ in the body of the infants and that these memories were repeated in the postnatal environment as seen by the way that the infant behaved and related to its environment.

The picture that has been painted by the detailed and explorative analysis can help us further understand the influence of maternal experiences and phantasies on the developing foetuses and how these might have long-lasting effects on development by influencing how the emergent self of the infant adapts to and interacts with his environment. We still don’t have a clear understanding of *how* this effect takes place exactly, but I believe the findings of this study which are line with previous theories and empirical studies give us a solid ground to say *that* there is a relationship between maternal phantasies and perceptions during pregnancy and early infant development. The issue of *what* a phenomenon is versus *how* it comes to fruition is an epistemological concern that psychoanalysis and psychoanalytic modes of knowledge generation have been trying to explain since its inception (Forrester 2017, Ricoeur 1977).

That being said, there are multiple limitations specific to this particular project and its methodology that need to be addressed and could be improved with future research. The short period of observation, 10 weeks, is considered the biggest limitation of the methodology. As discussed in Chapter 6, traditionally infant observations are carried out for

2 years, starting as early as possible from birth. This classic method with its length and breadth was not a possibility for this research due to practical implications of it being carried out by a PhD researcher with time restrictions. I, as the researcher and observer, observed 5 mother-infant duos instead of focusing on just one pair. This, coupled with the time limitations of the required date of completion of a PhD, made it impossible for me to observe 5 different families for 2 years, with interviews needing to be carried out during the second trimester of the mother participants. This study design meant that a waiting period of almost a year was needed between interview, birth and the infants growing to 6 months old for the observations to start. Carrying out 5 different infant observations at the same time for 2 years would also not be preferable for the reliability of the observer's emotional responses as data points, which is a valuable instrument for infant observation (Rustin, 2006). With overlap between infant observations, there could be the risk of observer's countertransference to one mother-infant pair, being a contaminant to other observations. This was the reason why no two infant observations were carried out at the same time.

Although the infants were observed only for a shorter-than-traditional amount of time, the most relevant period to see the possible manifestations of the influence of foetal experience was believed to be picked which helps make the data collected relevant in exploring the hypothesised relationships and the research questions. At around 6-7 months, there are milestones in normal development (Mahler, 1963; Mahler et al., 2008; Stern, 1985; Waddell, 2019) that were predicted to be relevant and indicative of the influence of prenatal life like weaning and the sense of a core and subjective self.

For future works where time limits are not an issue, the length of both the pre- and post-natal observations can be expanded, together with the use of different observers. For the pre-natal observations, instead of only conducting an interview, a similar technique to Piontelli (1992) and Caron & Lopes's (2017) research can be adopted where observations

start before birth with ultrasound imaging so that the foetuses can be *directly* observed. In addition, 2 years of observation can be done starting as close to birth as possible to both observe the development of infants fully but also to minimise the tension of how the pre- and post-natal environment interacts. If we can start observations as soon as possible after birth, we can directly observe what happens between mother and infant in the first six months too instead of just relying on how the mother describes it during the second informal interview before infant observations starts. The description by the mother is more than likely to be coloured by the mother's experiences and might not reflect the lived experience of the infant fully. A longitudinal study that starts during pregnancy can be a very insightful, albeit ambitious, method for the research problem and question, to observe if foetal experiences and early infant development could influence later personality development and maybe even later development of psychopathology for the child, adolescent, and adult.

Another limitation that was identified was possible bias during analysis. The findings from both the semi-structured interviews and the infant observations were conducted, transcribed, and analysed by me as the principal researcher. Said possibility of bias and contamination was tried to be brought to a minimum by putting a maximum amount of time between analysis of interviews and infant observations and their analysis. During this 'waiting period', the analyses of interviews were not re-visited, and they were only re-read *after* the writing up of all the infant observation notes corresponding to that particular infant-mother duo and *after* all observation notes were read and initial codes were generated. This risk of bias and possible contamination was also minimised by triangulating (Britton, 2004) the data and its analyses with supervision, the use of a reflective journal, attendance to infant observation seminars and discussion of findings in other spaces like conferences.

A recommendation for future work and research would be to have different, trained individuals conducting and analysing the interviews and conducting and analysing the infant

observations. Having different trained researchers doing the two legs of the research would eliminate unconscious bias and the possibility of contamination coming from the interviews to the infant observations. This issue was predicted and tried to be minimised but hiring another researcher was not possible due to the scope of consent from participants about who can handle their data and funding limitations.

REFERENCES

- Ainsworth, M. (1978). *Patterns of Attachment: A Psychological Study of the Strange Situation*. Lawrence Erlbaum.
- Ainsworth, M. D., & Bell, S. M. (1970). Attachment, exploration, and separation: Illustrated by the behavior of one-year-olds in a strange situation. *Child Development, 41*(1), 49–67. <https://doi.org/10.2307/1127388>
- Ainsworth, M., Bell, S. M., & Stayton, D. J. (1971). Individual differences in strange- situation behavior of one-year-olds. In *The origins of human social relations* (H. R. Schaffer, pp. 17–58). Academic Press.
- Amália Caron, N., Mercedes Cardoso Da Fonseca, M., & Sobreira Lopes, R. (2008). The baby and his majesties: Some considerations on human helplessness. *Infant Observation, 11*(1), Article 1. <https://doi.org/10.1080/13698030802034428>
- Anzieu, D., & Segal, N. (2016). *The Skin-Ego*. Karnac Books.
- Athan, A. M. (2020). Reproductive identity: An emerging concept. *The American Psychologist, 75*(4), 445–456
- Athan, A. M., & Reel, H. L. (2015). Maternal psychology: Reflections on the 20th anniversary of Deconstructing Developmental Psychology. *Feminism & Psychology, 25*(3), 311–325.302
- Bäckström, C., Kåreholt, I., Thorstensson, S., Golsäter, M., & Mårtensson, L. B. (2018). Quality of couple relationship among first-time mothers and partners, during pregnancy and the first six months of parenthood. *Sexual & Reproductive Healthcare, 17*, 56–64. <https://doi.org/10.1016/j.srhc.2018.07.001>
- Badcock, C. (2000). *Evolutionary psychology: A critical introduction* (Polity Press/Blackwell).

- Baraitser, L. (2006). Oi Mother, Keep Ye' Hair On! Impossible Transformations of Maternal Subjectivity. *Studies in Gender and Sexuality*, 7(3), 217-238.
- Baraitser, L. & Noack, A. (2007). Mother Courage: Reflections on Maternal Resilience. *British Journal of Psychotherapy*, 23(2), 171-188.
- Beebe, B. (2017). Daniel Stern: Microanalysis and the Empirical Infant Research Foundations, *Psychoanalytic Inquiry*, 37(4), 228-241.
- Beebe, B., & Lachmann, F. M. (2014). *The origins of attachment: Infant research and adult treatment*. Routledge, Taylor & Francis Group.
- Beebe, B., Messinger, D., Bahrnick, L. E., Margolis, A., Buck, K. A., & Chen, H. (2016). A systems view of mother–infant face-to-face communication. *Developmental Psychology*, 52(4), 556–571. <https://doi.org/10.1037/a0040085>
- Beebe, B., Sorter, D., Rustin, J., & Knoblauch, S. (2003). A Comparison of Meltzoff, Trevarthen, and Stern. *Psychoanalytic Dialogues*, 13(6), 777–804. <https://doi.org/10.1080/10481881309348768>
- Bellieni, C. V. (2012). Pain assessment in human fetus and infants. *The AAPS Journal*, 14(3), 456–461.
- Benjamin, J. (1995). *Like Subjects, Love Objects: Essays on Recognition and Difference*. Cambridge, MA: Harvard University Press.
- Benjamin, J. (1988). *The bonds of love: Psychoanalysis, feminism, and the problem of domination*. Penguin Random House.
- Briggs, A. (Ed.) (2002). *Surviving space: Papers on infant observation*. London: Karnac.
- Britton, R. (2004). *Subjectivity, objectivity, and triangular space*. *Psychoanalytic Quarterly*, 73(1), 47–61.
- Bick, E. (1964). Notes on Infant Observation in Psycho-Analytic Training. *International Journal of Psychoanalysis*, 45, 558–566.

- Bick, E. (1968). The Experience of the Skin in Early Object-Relations. *The International Journal of Psychoanalysis*, 49(2-3).
- Bick, E. (1986). Further Considerations on the Function of the Skin in Early Object Relations.: Findings from Infant Observation Integrated into Child and Adult Analysis. *British Journal of Psychotherapy*, 2(4), 292–299.
- Bion, W. R. (1962a). A theory of thinking. *International Journal of Psychoanalysis*, 43, 306–310.
- Bion, W. R. (1962b). *Learning from experience*. Maresfield library.
- Bion, W. R. (1989). *Two papers, the grid and caesura*. Karnac Books.
- Bowlby, J. (1980). *Attachment and loss*. Hogarth P.; Institute of Psycho-Analysis.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Braun, V., & Clarke, V. (2014). What can “thematic analysis” offer health and wellbeing researchers? *International Journal of Qualitative Studies on Health and Well-Being*, 9(1). <https://doi.org/10.3402/qhw.v9.26152>
- Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. *Qualitative Research in Sport, Exercise and Health*, 11(4), 589–597. <https://doi.org/10.1080/2159676X.2019.1628806>
- Braun, V., Clarke, V., Hayfield, N., Davey, L., & Jenkinson, E. (2022). Doing Reflexive Thematic Analysis. In S. Bager-Charleson & A. McBeath (Eds.), *Supporting Research in Counselling and Psychotherapy* (pp. 19–38). Springer International Publishing. https://doi.org/10.1007/978-3-031-13942-0_2
- Brazelton, T. B., & Cramer, B. G. (1991). *The Earliest Relationship: Parents, Infants and the Drama of Early Attachment*. Karnac Books.

- Bremner, J. G., & Wachs, T. D. (Eds.). (2010). *The Wiley-Blackwell handbook of infant development* (2. ed). Wiley-Blackwell.
- Britton, R. (2004). Subjectivity, Objectivity, and Triangular Space. *Psychoanalytic Quarterly*, 73, 47-62.
- Calef, V. (1968). The Unconscious Fantasy of Infanticide Manifested in Resistance. *Journal of American Psychoanalytic Association*, 16, 697–710.
- Caron, N., Lopes, R., Steibel, D. & Schneider Donelli, T. (2012) Writing as a challenge in the observer's journey through the Bick method of infant observation. *Infant Observation*, 15:3, 221-230, DOI: 10.1080/13698036.2012.726519
- Canário, C., & Figueiredo, B. (2016). Partner relationship from early pregnancy to 30 months postpartum: Gender and parity effects. *Couple and Family Psychology: Research and Practice*, 5(4), 226–239. <https://doi.org/10.1037/cfp0000066>
- Caron, N. A., & Lopes, R. (2015a). Learning about human nature and analytic technique from mothers and babies. *Infant Observation*, 18(3), 189–204.
- Caron, N. A., & Lopes, R. S. (2015b). When the internal setting becomes more important than the therapist/analyst's interpretative capacity: Extending the infant observation method to the prenatal and perinatal period. *Infant Observation*, 18(1), Article 1. <https://doi.org/10.1080/13698036.2015.1011825>
- Caron, N. A., & Lopes, R. S. (2017). *Learning about human nature and analytic technique from mothers and babies*. Karnac Books.
- Chatoor, I. (1989). Infantile Anorexia Nervosa: A Developmental Disorder of Separation and Individuation. *Journal of the American Academy of Psychoanalysis*, 17(1), Article 1. <https://doi.org/10.1521/jaap.1.1989.17.1.43>
- Clarke, S. & Hoggett, P. (2009). *Researching Beneath the Surface: Psycho-Social Research Methods in Practice*. Routledge.

- Cohen, N. J., Muir, E., Lojkasek, M., Muir, R., Parker, C. J., Barwick, M., & Brown, M. (1999). Watch, wait, and wonder: Testing the effectiveness of a new approach to mother-infant psychotherapy. *Infant Mental Health Journal*, *20*(4), 429–451.
- Cohen, T. (2017). Considering Gestational Life. *Psychoanalytic Dialogues*, *27*(5), 557–573. <https://doi.org/10.1080/10481885.2017.1355687>
- Cole, W. D. (2025). Abortion Policies in a Polarizing World Society, 1970 to 2020. *American Sociological Review*, *90*(4), 594-625.
- Cooper, J., & Maxwell, N. (1995). *Narcissistic wounds: Clinical perspectives*. Wiley.
- Cowan, C. P., & Cowan, P. A. (1995). Interventions to Ease the Transition to Parenthood: Why They Are Needed and What They Can Do. *Family Relations*, *44*(4). <https://doi.org/10.2307/584997>
- Cowan, C. P., Cowan, P. A., Heming, G., Garrett, E., Coysh, W. S., Curtis-Boles, H., & Boles, A. J. (1985). Transitions to Parenthood: His, Hers, and Theirs. *Journal of Family Issues*, *6*(4). <https://doi.org/10.1177/019251385006004004>
- Cramer, B., Robert-Tissot, C., Stern, D. N., Serpa-Rusconi, S., De Mural, M., Besson, G., Palacio-Espasa, F., Bachmann, J.-P., Knauer, D., Berney, C., & D'Arcis, U. (1990). Outcome evaluation in brief mother-infant psychotherapy: A preliminary report. *Infant Mental Health Journal*, *11*(3), 278–300.
- Cudmore, L. (2012). Finding a place for the baby: Complexity and congestion in the transition to parenthood. *Infant Observation*, *15*(1).
- Daehnert, C. (1998). The False Self as a Means of Disidentification: A Psychoanalytic Case Study. *Contemporary Psychoanalysis*, *34*(2), 251–271. <https://doi.org/10.1080/00107530.1998.10746361>

- Davies, H. (2025). "It's not me anymore, it's him" A hermeneutic-phenomenological analysis of matrescence with implications for counselling and psychotherapeutic practice. *European Journal for Qualitative Research in Psychotherapy*, 15, 1-20.
- de Rementeria, A. (2011) How the use of transference and countertransference, particularly in parent–infant psychotherapy, can inform the work of an education or childcare practitioner. *Psychodynamic Practice*, 17:1, 41-56, DOI: 10.1080/14753634.2011.539351
- DeCasper, A. J., & Spence, M. J. (1986). Prenatal maternal speech influences newborns' perception of speech sounds. *Infant Behavior and Development*, 9(2), 133–150. [https://doi.org/10.1016/0163-6383\(86\)90025-1](https://doi.org/10.1016/0163-6383(86)90025-1)
- di Pasquale, D., Galliera, S., Rosati, S., Grimaldi, P. & Stolfi, F. (2021) The observational role at the time of Covid-19. Experiences and reflections from observation students in northern Italy. *Infant Observation*. 24(1), 39-50, DOI: 10.1080/13698036.2021.1927139
- Dieter, J. N. I., Emory, E. K., Johnson, K. C., & Raynor, B. D. (2008). Maternal depression and anxiety effects on the human fetus: Preliminary findings and clinical implications. *Infant Mental Health Journal*, 29(5), 420–441. <https://doi.org/10.1002/imhj.20192>
- Donohue, J.J. & Levitt, S. D. (2001). The Impact of Legalised Abortion on Crime. *The Quarterly Journal of Economics*, 116(2), 379-420.
- Donohue, J.J. & Levitt, S. D. (2020). The Impact of Legalized Abortion on Crime over the Last Two Decades. *American Law and Economics Review*, 22(2), 241-302.
- Earnshaw, A. (1994). Autism: A Family Affair? *Journal of Child Psychotherapy*, 20, 85–101.
- Evertz, K., Janus, L., & Linder, R. (Eds.). (2021). *Handbook of Prenatal and Perinatal Psychology: Integrating Research and Practice*. Springer International Publishing. <https://doi.org/10.1007/978-3-030-41716-1>

- Farhi, N. (2003). "In Her Mother's Name": Imitation, A Pre-Identificatory Mechanism of Defence. *Contemporary Psychoanalysis*, 39(1), 75–87.
<https://doi.org/10.1080/00107530.2003.10747200>
- Farhi, N. (2010). The Hands of the Living God: "Finding the Familiar in the Unfamiliar". *Psychoanalytic Dialogues*, 20(5), 478–503.
- Feder, L. (1974). Adoption Trauma: Oedipus Myth/clinical Reality. *International Journal of Psycho-Analysis*, 55, 491–493.
- Feder, L. (1980). Preconceptive Ambivalence and External Reality. *International Journal of Psycho-Analysis*, 61, 161–178.
- Field, T., Diego, M., & Hernandez-Reif, M. (2006). Prenatal depression effects on the fetus and newborn: A review. *Infant Behavior and Development*, 29(3), 445–455.
<https://doi.org/10.1016/j.infbeh.2006.03.003>
- Field, T. M. (2007). *The amazing infant*. Blackwell.
- Figueiredo, B., & Conde, A. (2015). First- and second-time parents' couple relationship: From pregnancy to second year postpartum. *Family Science*, 6(1).
<https://doi.org/10.1080/19424620.2015.1075894>
- Fissell, M. (2025). *Abortion: A History*. Hurst & Company.
- Fonagy, P., György Gergely, Elliot L. Jurist, & Mary Target. (2002). *Affect regulation, mentalization and the development of the self*. Other Press.
- Fonagy, P., Person, E. S., & Sandler, J. (2012). *Freud's 'On narcissism, an introduction'* (2nd ed.). Karnac.
- Fonagy, P., Steele, H., & Steele, M. (1991). Maternal Representations of Attachment during Pregnancy Predict the Organization of Infant-Mother Attachment at One Year of Age. *Child Development*, 62(5), 891. <https://doi.org/10.2307/1131141>
- Forrester, J. (2017). *Thinking in cases*. Polity Press.

- Fraiberg, S. (1982). Pathological Defenses in Infancy. *The Psychoanalytic Quarterly*, 51(4), 612–635. <https://doi.org/10.1080/21674086.1982.11927012>
- Fraiberg, S., Adelson, E., & Shapiro, V. (1975). Ghosts in the Nursery: A Psychoanalytic Approach to the Problems of Impaired Infant-Mother Relationships. *Journal of the American Academy of Child Psychiatry*, 14(3). [https://doi.org/10.1016/S0002-7138\(09\)61442-4](https://doi.org/10.1016/S0002-7138(09)61442-4)
- Freud, S. (1905/1953). Fragment of an analysis of a case of hysteria. In J. Strachey (Ed. & Trans.), *The standard edition of the complete psychological works of Sigmund Freud* (Vol. 7, pp. 3–122). London: Hogarth Press.
- (1912/1958). *The dynamics of transference* (J. Strachey, Trans.). In J. Strachey (Ed. & Trans.), *The standard edition of the complete psychological works of Sigmund Freud* (Vol. 12, pp. 97–108). London: Hogarth Press. (Original work published 1912)
- (1914). On the history of the psycho-analytic movement. *The Standard Edition of the Complete Psychological Works of Sigmund Freud Volume XIV: 1–66*. London: Hogarth.
- (1916). Introductory Lectures on Psycho-Analysis. *The Standard Edition of the Complete Psychological Works of Sigmund Freud Volume XV (1915-1916): Introductory Lectures on Psycho-Analysis (Parts I and II)*.
- (1919). The ‘uncanny’. *The Standard Edition of the Complete Psychological Works of Sigmund Freud Volume XVII: 217–256*. London: Hogarth.
- (1920). Beyond the Pleasure Principle. *The Standard Edition of the Complete Psychological Works of Sigmund Freud Volume XVIII: 12–19*. London: Hogarth.
- (1923). Two encyclopaedia articles. *The Standard Edition of the Complete Psychological Works of Sigmund Freud Volume XIX: 233–259*. London: Hogarth.

- (1925). An autobiographical study. The Standard Edition of the Complete Psychological Works of Sigmund Freud Volume XX: 1–74. London: Hogarth.
- (1926). Inhibitions, Symptoms and Anxiety. The Standard Edition of the Complete Psychological Works of Sigmund Freud Volume XX: 75–175. London: Hogarth.
- Frosh, S. (2003). *Psychoanalysis outside the clinic: Interventions in psychosocial studies*. Palgrave Macmillan
- Frosh, S., & Baraitser, L. (2008). Psychoanalysis and psychosocial studies. *Psychoanalysis, Culture & Society*, 13(4), 346–365. <https://doi.org/10.1057/pcs.2008.28>
- Gaddini, E. (1992). *A psychoanalytic theory of infantile experience: Conceptual and clinical reflections*. Tavistock/Routledge.
- Gaddini, E., & Limentani, A. (2005). *A Psychoanalytic Theory of Infantile Experience: Conceptual and Clinical Reflections* (1st ed). Taylor and Francis.
- Gardner, F. (2004). ‘TO ENLIVEN HER WAS MY LIVING’: THOUGHTS ON COMPLIANCE AND SACRIFICE AS CONSEQUENCES OF MALIGNANT IDENTIFICATION WITH A NARCISSISTIC PARENT. *British Journal of Psychotherapy*, 21(1), 49–62.
- Gatti, P. (2021). Infant observation through a screen; an online response to the impossibility of in-person observation during the Covid 19 pandemic of 2020–2021 in northern Italy. *Infant Observation*. 24(1), 51–62, DOI: 10.1080/13698036.2021.1927800
- Gerzi, S., & Berman, E. (1981). Emotional reactions of expectant fathers to their wives’ first pregnancy. *British Journal of Medical Psychology*, 54(3).
- Gingras, J. L. (2005). Fetal homologue of infant crying. *Archives of Disease in Childhood - Fetal and Neonatal Edition*, 90(5), 415–418. <https://doi.org/10.1136/adc.2004.062257>
- Glasser, M. (1992). Psychoanalysis of Narcissistic Disorders. *International Journal of Psycho-Analysis*, 73(3).

- Goldman, D. (2010). Letting the Sea In: Commentary on Paper by Nina Farhi. *Psychoanalytic Dialogues*, 20(5), 504–509.
- Green, A. (2000) Science and science fiction in infant research. In Sandler, J., Sandler, A-M. & Davies, R. (Eds.), *Clinical and Observational Psychoanalytic Research: Roots of a Controversy*. London: Karnac, pp. 41 – 72 .
- Grete L. Bibring, Thomas F. Dwyer, Dorothy S. Huntington & Arthur F. Valenstein (1961) A Study of the Psychological Processes in Pregnancy and of the Earliest Mother-Child Relationship, *The Psychoanalytic Study of the Child*, 16(1), 9-24, DOI: 10.1080/00797308.1961.11823197
- Groarke, S. (2008). Psychoanalytic infant observation: A critical assessment. *European Journal of Psychotherapy and Counselling*, 10(4), 299–321.
- Hacking, I. (1995). *Rewriting the soul: Multiple personality and the sciences of memory*. Princeton University Press.
- Haig, D. (1993). Genetic Conflicts in Human Pregnancy. *The Quarterly Review of Biology*, 68(4), 495–532. <https://doi.org/10.1086/418300>
- Hall, C. S. (1967). Are prenatal and birth experiences represented in dreams? *Psychoanalytic Review*, 54(1), 157–174.
- Heimann, P. (1950). On Counter-Transference. *The International Journal of Psychoanalysis*, 31, 81.
- Heimann, P., Klein, M., & Money-Kyrle, R. (2018). *New Directions in Psycho-Analysis: The Significance of Infant Conflict in the Pattern of Adult Behaviour*. Routledge. <https://doi.org/10.4324/9780429477546>
- Hendrickson, W. A., & Ward, K. B. (1975). Atomic models for the polypeptide backbones of myohemerythrin and hemerythrin. *Biochemical and Biophysical Research Communications*, 66(4). [https://doi.org/10.1016/0006-291x\(75\)90508-2](https://doi.org/10.1016/0006-291x(75)90508-2)

- Hohmann-Marriott, B. (2009). The Couple Context of Pregnancy and its Effects on Prenatal Care and Birth Outcomes. *Maternal and Child Health Journal*, 13(6).
<https://doi.org/10.1007/s10995-009-0467-0>
- Holmes, H. (2020). *Seeing God in Our Birth Experiences: A Psychoanalytic Inquiry into Pre and Perinatal Religious Development*. Taylor & Francis Group.
- Hollway, W. (2007) Afterword: Infant observation in a research project. *International Journal of Infant Observation and its Applications*, 10(3), 331–336.
- Hollway, W. (2012). Infant observation: opportunities, challenges, threats. *International Journal of Infant Observation and its Applications*, 15(1), 21-32.
- Hollway, W. (2015) *Knowing Mothers: Researching Maternal Identity Change*. Palgrave Macmillan.
- Hoover, T., & Metz, G. A. S. (2021). Transgenerational Consequences of Perinatal Experiences: Programming of Health and Disease from Mother to Child and Subsequent Generations. In K. Evertz, L. Janus, & R. Linder (Eds.), *Handbook of Prenatal and Perinatal Psychology* (pp. 63–81). Springer International Publishing.
https://doi.org/10.1007/978-3-030-41716-1_6
- Huizink, A. C., Mulder, E. J. H., & Buitelaar, J. K. (2004). Prenatal Stress and Risk for Psychopathology: Specific Effects or Induction of General Susceptibility? *Psychological Bulletin*, 130(1), 115–142. <https://doi.org/10.1037/0033-2909.130.1.115>
- Hurley, A. (2017). ‘Her Majesty the Baby’: Narcissistic states in babies and young children. *Journal of Child Psychotherapy*, 43(2), 192–207.
- Hüther, G., Krens, I., & Weser, I. (2013). *Das Geheimnis der ersten neun Monate: Unsere frühesten Prägungen* (5. Aufl). Beltz.

- Isaacs, S. (2018). The Nature and Function of Phantasy. In J. Riviere & E. Jones (Eds.), *Developments in Psychoanalysis* (1st ed., pp. 67–121). Routledge. <https://doi.org/10.4324/9780429473661-3>
- Jacobson, E. (1954). The Self and the Object World: Vicissitudes of Their Infantile Cathexes and Their Influence on Ideational and Affective Development. *The Psychoanalytic Study of the Child*, 9(1). <https://doi.org/10.1080/00797308.1954.11822534>
- Janus, L. (2021). The History of Prenatal Psychology. In K. Evertz, L. Janus, & R. Linder (Eds.), *Handbook of Prenatal and Perinatal Psychology: Integrating Research and Practice* (pp. 3–8). Springer International Publishing. https://doi.org/10.1007/978-3-030-41716-1_1
- Johnson, C. (2024). Drafting injustice: overturning Roe v. Wade, spillover effects and reproductive rights in context. *Feminist Theory*, 25(1), 122-127.
- Joseph, B. (1985). Transference: The total situation. *International Journal of Psycho-Analysis*, 66, 447–454.
- Kanner, L., & Lesser, L. I. (1958). Early Infantile Autism. *Pediatric Clinics of North America*, 5(3). [https://doi.org/10.1016/S0031-3955\(16\)30693-9](https://doi.org/10.1016/S0031-3955(16)30693-9)
- Klaus, M. H., & Kennell, J. H. (1982). *Parent-Infant Bonding* (2nd ed.). C. V. Mosby.
- Klein, M. (1935). A contribution to the psychogenesis of manic-depressive states. *The International Journal of Psychoanalysis*, 16, 145–174.
- Klein, M. (1940). Mourning and its relation to manic-depressive states. *International Journal of Psychoanalysis*, 21, 125–153.
- Klein, M. (1946). Notes on some schizoid mechanisms. *The International Journal of Psychoanalysis*, 27, 99–110.
- Klein, M. (1957). *Envy and gratitude: A study of unconscious sources*. London: Tavistock Publications.

- Klein, M., Heimann, P., Money-Kyrle, R. E., & Jones, E. (Eds.). (2019). *New directions in psycho-analysis: The significance of infant conflict in the pattern of adult behaviour*. Routledge, Taylor and Francis Group.
- Kluwer, E. S., & Johnson, M. D. (2007). Conflict Frequency and Relationship Quality Across the Transition to Parenthood. *Journal of Marriage and Family*, 69(5), 1089-1106. <https://doi.org/10.1111/j.1741-3737.2007.00434.x>
- Kohut, H. (1971). *The analysis of the self: A systematic approach to the psychoanalytic treatment of narcissistic personality disorders*. University of Chicago Press.
- Kuhn, T. S., & Hacking, I. (2012). *The structure of scientific revolutions* (Fourth edition). The University of Chicago Press.
- Kumar, R. (1982). Neurotic Disorders. In *Motherhood and Mental Illness*. London: Academic Press.
- Lange, A. (2011). Prenatal Maternal Stress and the Developing Fetus and Infant: A Review of Animal Models as Related to Human Research. *Journal of Infant, Child, and Adolescent Psychotherapy*, 10(2-3), 326-340.
- LeMasters, E. E. (1957). Parenthood as Crisis. *Marriage and Family Living*, 19(4), 352-355. <https://doi.org/10.2307/347802>
- Leon, I. G. (1996). Revising psychoanalytic understandings of perinatal loss. *Psychoanalytic Psychology*, 13(2), 161-176. <https://doi.org/10.1037/h0079646>
- Levy, I. (2011). The Laius complex: From myth to psychoanalysis. *International Forum of Psychoanalysis*, 20(4), 222-228.
- Lieberman, A. F. (1992). Infant-parent psychotherapy with toddlers. *Development and Psychopathology*, 4(4), 559-574. <https://doi.org/10.1017/S0954579400004879>

- López-Teijón, M., García-Faura, Á., & Prats-Galino, A. (2015). Fetal facial expression in response to intravaginal music emission. *Ultrasound, 23*(4), 216–223. <https://doi.org/10.1177/1742271X15609367>
- Lumey, L., Stein, A. D., Kahn, H. S., Van Der Pal-de Bruin, K. M., Blauw, G., Zybert, P. A., & Susser, E. S. (2007). Cohort Profile: The Dutch Hunger Winter Families Study. *International Journal of Epidemiology, 36*(6), 1196–1204. <https://doi.org/10.1093/ije/dym126>
- Lupien, S. J., & Lepage, M. (2001). Stress, memory, and the hippocampus: can't live with it, can't live without it. *Behavioural brain research, 127*(1-2), 137–158. [https://doi.org/10.1016/s0166-4328\(01\)00361-8](https://doi.org/10.1016/s0166-4328(01)00361-8)
- Mahler, M. S. (1952). On Child Psychosis and Schizophrenia. *Psychoanalytic Study of the Child, 7*, 286–305.
- Margaret S. Mahler (1963) Thoughts about Development and Individuation, *The Psychoanalytic Study of the Child, 18*(1), 307-324, DOI: 10.1080/00797308.1963.11822933
- Mahler, M. S., Bergman, A., & Pine, F. (2008). *The psychological birth of the human infant symbiosis and individuation*. Basic Books.
- Maiello, S. (1995). The sound-object: A hypothesis about prenatal auditory experience and memory. *Journal of Child Psychotherapy, 21*(1), 23–41. <https://doi.org/10.1080/00754179508254905>
- Maiello, S. (2001). Prenatal trauma and autism. *Journal of Child Psychotherapy, 27*(2), 107–124. <https://doi.org/10.1080/00754170110056661>
- Margolis, A. E., Lee, S. H., Peterson, B. S., & Beebe, B. (2019). Profiles of infant communicative behavior. *Developmental Psychology, 55*(8), 1594–1604. <https://doi.org/10.1037/dev0000745>

- Meltzoff, A. N. (2002). Imitation as a Mechanism of Social Cognition: Origins of Empathy, Theory of Mind, and the Representation of Action. In U. Goswami (Ed.), *Blackwell Handbook of Childhood Cognitive Development* (1st ed., pp. 6–25). Wiley.
<https://doi.org/10.1002/9780470996652.ch1>
- Meltzoff, A. N., & Moore, M. K. (1983). Newborn infants imitate adult facial gestures. *Child Development*, *54*(3), 702–709. <https://doi.org/10.2307/1130058>
- Meltzoff, A. N., & Moore, M. K. (1989). Imitation in newborn infants: Exploring the range of gestures imitated and the underlying mechanisms. *Developmental Psychology*, *25*(6), 954–962. <https://doi.org/10.1037/0012-1649.25.6.954>
- Mennella, J. A., Lukasewycz, L. D., Castor, S. M., & Beauchamp, G. K. (2011). The timing and duration of a sensitive period in human flavor learning: A randomized trial. *The American Journal of Clinical Nutrition*, *93*(5), 1019–1024.
<https://doi.org/10.3945/ajcn.110.003541>
- Milakovic, I. (1967). The Hypothesis of a Deglutitive (Prenatal) Stage in Libidinal Development. *International Journal of Psycho-Analysis*, *48*, 76–82.
- Miller, L. J., Rustin, M., Rustin, M. & Shuttleworth J. (Eds.). (1989). *Closely observed infants*. Duckworth.
- Milner, M. B. (2011). *The hands of the living God: An account of a psycho-analytic treatment* (New ed.). Routledge.
- Miltz, S., Pennicott-Banks, E., Avdi, E., & Baradon, T. (2023). Addressing the baby and atypical maternal behaviour in psychoanalytic parent-infant psychotherapy. *Journal of Child Psychotherapy*, *49*(2), 179–190. <https://doi.org/10.1080/0075417X.2022.2143547>
- Mintzer, D., Als Heidelise, Tronick, E. Z., & Brazelton, T. B. (2003). Parenting an infant with a birth defect- the regulation of self-esteem. In *Parent- Infant Psychodynamics: Wild Things, Mirrors & Ghosts*. Whurr Publishers.

- Missioner, S. (2018). *Perinatalitenin Ruhsalligi ve Psikanaltik Klinik*. Baglam Yayinlari.
- Mitchell, S. A., & Black, M. J. (1995). *Freud and beyond: A history of modern psychoanalytic thought*. Basic books.
- Mitnick, D. M., Heyman, R. E., & Smith Slep, A. M. (2009). Changes in relationship satisfaction across the transition to parenthood: A meta-analysis. *Journal of Family Psychology, 23*(6), 848–852. <https://doi.org/10.1037/a0017004>
- Monticelli, M., & Coveri, R. (2019). The story before the story: Developments in pre-Infant observation. *Infant Observation, 22*(2–3), Article 2–3. <https://doi.org/10.1080/13698036.2019.1680310>
- Morgan, M. S. (2012). Case Studies: One Observation or Many? Justification or Discovery? *Philosophy of Science, 79*(5), 667–677. <https://doi.org/10.1086/667848>
- Music, G. (2012). How do we know the ways in which infants experience the world? In C. Urwin & J. Sternberg (Eds.), *Infant observation and research: Emotional processes in everyday lives*. (pp. 23-31). London: Karnac.
- Music, G. (2017). *Nurturing natures: Attachment and children's emotional, sociocultural and brain development* (Second Edition). Routledge, Taylor & Francis Group.
- Music, G. (2024). *Womb Life: Wonders and challenges of pregnancy, the foetus' journey and birth*. Mind-Nurturing Books.
- Norman, J. (2004). Transformations of early infantile experiences: A 6-month-old in psychoanalysis. *The International Journal of Psychoanalysis, 85*(5), 1103–1122. <https://doi.org/10.1516/53BP-0P88-DCAR-R5HE>
- Oakley, A. (1984). *The Captured Womb: A History of the Medical Care of Pregnant Women*. Basil Blackwell.
- O'Reilley, A. (2019). Matricentric feminism: A feminism for mothers. *Journal of the Motherhood Initiative, 10*(1–2), 13–26.

- Pallarés, M. E., Scacchi Bernasconi, P. A., Feleder, C., & Cutrera, R. A. (2007). Effects of prenatal stress on motor performance and anxiety behavior in Swiss mice. *Physiology & Behavior*, *92*(5), 951–956. <https://doi.org/10.1016/j.physbeh.2007.06.021>
- Parker, R. (2005). *Torn in two: The experience of maternal ambivalence* (New and rev. ed). Virago.
- Piaget, J. (1953). *The construction of reality in the child*. Routledge, Taylor & Francis Group.
- Piaget, J., & Cook, M. (1998). *The origins of intelligence in children*. International Universities Press.
- Pines, D. (1980). Skin Communication: Early Skin Disorders and their Effect on Transference and Countertransference. *The International Journal of Psychoanalysis*, *61*, 315–323.
- Pines, D. (1982). The Relevance of Early Psychic Development to Pregnancy and Abortion. *The International Journal of Psychoanalysis*, *63*, 311–319.
- Pines, D. (1988). Adolescent pregnancy and motherhood: A psychoanalytical perspective. *Psychoanalytic Inquiry*, *8*(2), 234–251. <https://doi.org/10.1080/07351698809533720>
- Pines, D. (1990). Pregnancy, Miscarriage and Abortion. A Psychoanalytic Perspective. A Psychoanalytic Perspective. *The International Journal of Psychoanalysis*, *71*, 301–307.
- Piontelli, A. (1988). Pre-natal life and birth as reflected in the analysis of a 2-year-old psychotic girl. *International Review of Psycho-Analysis*, *15*(1), 73–81.
- Piontelli, A. (1992). *From fetus to child: An observational and psychoanalytic study*. Tavistock/Routledge.
- Piontelli, A. (2024). *Citizen Fetus: The Changing Image of Motherhood*. Palgrave Macmillan.
- Price, H. & Cooper, A. (2012). In the field: Psychoanalytic observation and epistemological realism. In C. Urwin & J. Sternberg (Eds.), *Infant observation and research: Emotional processes in everyday lives*. (pp. 56-65). London: Karnac.

- Rabuzzi, K. A. (1994). *Mother with Child: Transformations through childbirth*. Indiana University Press.
- Ramsdell, E. L., Franz, M., & Brock, R. L. (2020). A Multifaceted and Dyadic Examination of Intimate Relationship Quality during Pregnancy: Implications for Global Relationship Satisfaction. *Family Process*, 59(2), 556-570. <https://doi.org/10.1111/famp.12424>
- Rank, O. (2014). *The trauma of birth*. Taylor & Francis.
- Raphael, D. (1975). Matrescence, becoming a mother, a “new/old” rite de passage. In D. Raphael (Ed.), *Being female: Reproduction, power and change*. The Hague: Mouton, pp. 65–71.
- Raphael-Leff, J. (1983). Facilitators and Regulators: Two approaches to mothering. *British Journal of Medical Psychology*, 56(4), 379–390. <https://doi.org/10.1111/j.2044-8341.1983.tb01571.x>
- Raphael-Leff, J. (1991). *Psychological processes of childbearing* (1. ed). Chapman and Hall.
- Raphael-Leff, J. (1993). *Pregnancy: The inside story*. Karnac Books.
- Raphael-Leff, J. (1995). Narcissistic displacement in childbearing. In J. Cooper & N. Maxwell (eds) *Narcissistic Wounds: Clinical Perspectives* (77-94), Whurr Publishers.
- Raphael-Leff, J. (2004). *Psychological processes of childbearing* (4th ed.). Chapman & Hall.
- Rascovsky, A. (1956). Beyond the Oral Stage. *The International Journal of Psychoanalysis*, 37, 286–289.
- Rascovsky, M. (1968). On the Genesis of Acting out and Psychopathic Behaviour in Sophocles’. *The International Journal of Psychoanalysis*, 49, 390–394.
- Redshaw, M., & Martin, C. (2014). The couple relationship before and during transition to parenthood. *Journal of Reproductive and Infant Psychology*, 32(2), 109-111. <https://doi.org/10.1080/02646838.2014.896146>

- Reid, M. (2012). 'For now we see through a glass, darkly': The timelessness of emotional difficulties during the perinatal period. *Infant Observation*, 15(3), 221-234. <https://doi.org/10.1080/13698036.2012.727232>
- Reid, S. (1997). *Developments in infant observation: The Tavistock model*. Routledge.
- Remeikis, G. V. (2001). A review of the psychoanalytic literature on abortion. *Journal of the American Academy of Psychoanalysis*, 29(2), 231-244. <https://doi.org/10.1521/jaap.29.2.231.17266>
- Ricoeur, P. (1977). The Question of Proof In Freud's Psychoanalytic Writings. *Journal of the American Psychoanalytic Association*, 25(4), 835-872. <https://doi.org/10.1177/000306517702500404>
- Rochat, P. (2010). Emerging Self-Concept. In J. G. Bremner & T. D. Wachs (Eds.), *The Wiley-Blackwell Handbook of Infant Development* (1st ed., pp. 320-344). Wiley. <https://doi.org/10.1002/9781444327564.ch10>
- Rubin, R. (1984). *Maternal Identity and the Maternal Experience*. Springer.
- Rustin, M. (2006). Infant observation research: What have we learned so far? *Infant Observation*, 9(1), 35-52. <https://doi.org/10.1080/13698030600593856>
- Rustin, M.J. (2011a). In defence of infant observation research. *European Journal of Psychotherapy and Counselling*, 13(2), 153-168.
- Rustin, M.J. (2011b) Infant observation and research: a reply to Steven Groarke, *International Journal of Infant Observation and its Applications*, 14(2), 179-190.
- Rustin, M. (2022). Where are we now? Reflections on infant observation then and now. *Infant Observation*, 25(1), 4-15. <https://doi.org/10.1080/13698036.2022.2075432>
- Rustin, M., & Rustin, M. (Eds.). (2019). *New discoveries in child psychotherapy: Findings from qualitative research*. Routledge.

- Sagiv-Reiss, D. M., Birnbaum, G. E., & Safir, M. P. (2012). Changes in Sexual Experiences and Relationship Quality During Pregnancy. *Archives of Sexual Behavior, 41*(5), 1241-1251. <https://doi.org/10.1007/s10508-011-9839-9>
- Salomonsson, B. (2016). Infantile defences in parent-infant psychotherapy: The example of gaze avoidance. *The International Journal of Psychoanalysis, 97*(1), 65–88. <https://doi.org/10.1111/1745-8315.12331>
- Salzberger-Wittenberg, I. (2018). *Experiencing endings and beginnings*. Routledge.
- Sandman, C. A., Davis, E. P., Buss, C., & Glynn, L. M. (2012). Exposure to Prenatal Psychobiological Stress Exerts Programming Influences on the Mother and Her Fetus. *Neuroendocrinology, 95*(1), Article 1. <https://doi.org/10.1159/000327017>
- Sandman, C. A., Davis, E. P., & Glynn, L. M. (2012). Prescient Human Fetuses Thrive. *Psychological Science, 23*(1), 93–100. <https://doi.org/10.1177/0956797611422073>
- Sapolsky, R. M., Krey, L. C., & McEwen, B. S. (1986). The neuroendocrinology of stress and aging: the glucocorticoid cascade hypothesis. *Endocrine reviews, 7*(3), 284–301. <https://doi.org/10.1210/edrv-7-3-284>
- Segal, H. (1988). *Introduction to the work of Melanie Klein*. Karnac.
- Shallcross, W. (2012). What can be learned from a single case of psychoanalytic infant observation. In C. Urwin & J. Sternberg (Eds.), *Infant observation and research: Emotional processes in everyday lives* (pp. 69–80). Routledge.
- Shallcross, W. (2014). *What can be learned from a single case of Psychoanalytic Infant Observation?* (Unpublished Manuscript)
- Shyamalan, M. N. (Director). (2019-2023). *The Servant*.
- Sidesinger, T. (2024). Maternal Excess: Pathways Through Overwhelm to Transformation in the Perinatal Period. *Studies in Gender and Sexuality, 25*(2), 93–103.
- Skinner, B. F. (1965). *Science and human behavior*. The Free Press.

- Smith, J. C., Cumming, A., & Xeros-Constantinides, S. (2010). A Decade of Parent and Infant Relationship Support Group Therapy Programs. *International Journal of Group Psychotherapy*, *60*(1), 59–89. <https://doi.org/10.1521/ijgp.2010.60.1.59>
- Spitz, R. A. (1992). *The first year of life: A psychoanalytic study of normal and deviant development of object relations*. International Universities Press.
- Stern, D. N. (1971), A microanalysis of mother-infant interaction. *Journal of American Academy of Child and Adolescent Psychiatry*, *10*: 501–517
- Stern, D. N. (1985). *The interpersonal world of the infant: A view from psychoanalysis and developmental psychology*. Basic Books.
- Stern, D.N. & Bruschiweiler-Stern, N. (1998). *The Birth of a Mother*. Basic Books.
- Stern, D. (2000) The relevance of empirical infant research to psychoanalytic theory and practice. In Sandler, J., Sandler, A-M. & Davies, R. (Eds.), *Clinical and Observational Psychoanalytic Research: Roots of a Controversy*. London: Karnac, pp. 73 – 90
- Stockdale-Wolfe, E. (1993). Fear of fusion: Nonverbal behavior in secondary autism. *Psychoanalytic Inquiry*, *13*(1), 9–33. <https://doi.org/10.1080/07351699309533919>
- Tracey, N., Blake, P., Warren, B., Hardy, H., Enfield, S., & Schein, P. (1995). A mother's narrative of a premature birth. *Journal of Child Psychotherapy*, *21*(1), 43-64. <https://doi.org/10.1080/00754179508254906>
- Trevarthen, C. (1979). Communication and co-operation in early infancy: A description of primary intersubjectivity. In M. Bullowa (Ed.), *Before Speech: The beginning of interpersonal communication* (pp. 321–347). Cambridge University Press.
- Trivers, R. L. (1974). Parent-Offspring Conflict. *American Zoologist*, *14*(1), 249–264. <https://doi.org/10.1093/icb/14.1.249>
- Tustin, F. (1986). *Autistic barriers in neurotic patients*. Karnac.
- Tustin, F. (1990). *The protective shell in children and adults*. Karnac.

- Urwin, C. (2007). Doing infant observation differently? *International Journal of Infant Observation and its Applications*, 10(3), 239-252
- Urwin, C., & Sternberg, J. (2012). Introduction. In C. Urwin & J. Sternberg (Eds.), *Infant observation and research: Emotional processes in everyday lives*. (pp. 1-10). London: Karnac.
- Vallino, D. (2007). Primitive communication and proto-alpha function in infants. *Infant Observation*, 10(1), 77–86. <https://doi.org/10.1080/13698030701234806>
- Van Den Bergh, B. R. H. (2021). Prenatal Developmental Origins of Early Brain and Behavior Development, of Self-Regulation in Adolescence, and of Cognition and Central and Autonomic Nervous System Function in Adulthood. In K. Evertz, L. Janus, & R. Linder (Eds.), *Handbook of Prenatal and Perinatal Psychology* (pp. 83–113). Springer International Publishing. https://doi.org/10.1007/978-3-030-41716-1_7
- Verny, T. R. (1981). *The Secret Life of the Unborn Child*. Simon & Schuster/Summit.
- Verny, T. R. (2021). The Pre- and Perinatal Origins of Childhood and Adult Diseases and Personality Disorders. In K. Evertz, L. Janus, & R. Linder (Eds.), *Handbook of Prenatal and Perinatal Psychology* (pp. 47–62). Springer International Publishing. https://doi.org/10.1007/978-3-030-41716-1_5
- Von Lüpke, H. (2021). Epigenetics. In K. Evertz, L. Janus, & R. Linder (Eds.), *Handbook of Prenatal and Perinatal Psychology* (pp. 149–154). Springer International Publishing. https://doi.org/10.1007/978-3-030-41716-1_9
- von Wyl, A., von Klitzing, K., Perren, S., & Bürgin, D. (2004). The influence of prenatal triadic capacities on early mother-father-infant interaction patterns. *Journal of the American Psychoanalytic Association*, 52(2), 471–473.
- Waddell, M. (2019). *Inside Lives: Psychoanalysis and the Growth of Personality*. Routledge.

- Whisman, M. A., Davila, J., & Goodman, S. H. (2011). Relationship adjustment, depression, and anxiety during pregnancy and the postpartum period. *Journal of family psychology : JFP : journal of the Division of Family Psychology of the American Psychological Association (Division 43)*, 25(3), 375–383. <https://doi.org/10.1037/a0023790>
- Wiesmann, U. N., DiDonato, S., & Herschkowitz, N. N. (1975). Effect of chloroquine on cultured fibroblasts: Release of lysosomal hydrolases and inhibition of their uptake. *Biochemical and Biophysical Research Communications*, 66(4), 1338-1343. [https://doi.org/10.1016/0006-291x\(75\)90506-9](https://doi.org/10.1016/0006-291x(75)90506-9)
- Winnicott, D. W. (1953). Transitional objects and transitional phenomena; a study of the first not-me possession. *The International Journal of Psychoanalysis*, 34, 89–97.
- (1956/1975). Primary Maternal Preoccupation. In *Through paediatrics to psycho-analysis: Collected papers* (pp. 300–305). Hogarth Press.
- (1957a). Birth trauma, birth memories and anxiety. In *Through paediatrics to psycho-analysis: Collected Papers*. Basic Books.
- (1957b). *Mother and child: A primer of first relationships*. Basic Books.
- (1960). Ego distortion in terms of true and false self. In *The maturational processes and the facilitating environment*. International Universities Press.
- (1965). The theory of the parent-infant relationship. In *The maturational processes and the facilitating environment*. Hogarth P.; Institute of Psycho-Analysis.
- (1980). *Playing and reality*. Tavistock Publications.
- (1982). *Collected papers: Through paediatrics to psycho-analysis*. Routledge.
- Woods, R. (2009). *Death before Birth: Fetal Health and Mortality in Historical Perspective*. Oxford University Press.

APPENDICES

Appendix A: Call for participants advert

Are you a pregnant woman?

Your experiences, emotions, and thoughts are very important and valuable!

What is this study about?

The aim of this study is to understand the relationship between mothers' experience of pregnancy and early infant development.

Why participate?

- You will contribute valuable information to better our understanding around pregnancy, early infancy, and mother-infant bonding.
- You may help those having a difficult pregnancy or mothers with infants who have behavioural issues.

Who can participate?

- Over 18
- Must have access to internet and a device.
- Pregnant woman in first or second trimester of your pregnancy



If you are interested in participating or want further information, call or email:

**Oyku Turker
(PhD Candidate)
Principal Researcher
ot19081@essex.ac.uk
+44 7342 386 938**

Appendix B: Participant Information Sheet

Title of the Project: Intrauterine Life and the Development of the Ego

Research Team: Oyku Turker (Principal Researcher), Arianna Pulsoni (Supervisor), Susan Kegerreis (Supervisor)

Data Controller: University of Essex

My name is Oyku Turker and I am a PhD student at the University of Essex. I would like to invite you to take part in a research study. Before making a decision whether or not to take part, I would like to give a brief outline of the purpose of the study and describe your involvement and rights, if you agree to take part. It is important for you to understand the purpose of the research and what it will involve. Please take time to carefully read the following information.

You have been invited to take part in this study because you are a pregnant woman. A total of six women will be asked to participate in this study.

It is up to you to decide whether or not to take part. You do not have to take part if you do not want to and participation is completely voluntary. If you do decide to take part, you will be asked to sign an informed consent form. You will receive copies of this participant information sheet and consent form for you to archive. Any information obtained from you cannot legally be processed before you give consent. You will not receive any economic compensation for your participation.

The aim of this study is to understand the relationship between mothers' experience of pregnancy and early infant development. The study consists of two separate parts. If you decide to participate, you will allow the researcher to ask a few basic questions about the personal experience of your pregnancy, in the first part of the study. This informal interview will take place at an agreed time on the online platform Zoom, in the second trimester of your pregnancy. This first part of the study will take place on one occasion and will vary in length

for each participant because of individual answers given. It will be asked of you that you are in a private space where you feel you will be able to talk freely during this interview. The interview will be audio recorded and later transcribed by principal researcher, at this point the data will be anonymised. Only the researcher and supervisor will have access to these records during the study and the audio recordings and transcriptions will be kept safe in a locked office and password protected computer, respectively. In the second part of the study, the researcher will conduct regular observations of your 6-7-month-old infant. These observations will take place on the online platform Zoom and will be carried out for 10 weeks, once a week for 50 minutes at a time. These sessions will be purely observational, and your infant will not need to take part in any activities. The interview with you and the observation of your infant will help the researcher to draw insights about your experience of pregnancy and the early life of your infant within agreed limits of confidentiality. This means that all material obtained throughout the study will be fully anonymised, and pseudonyms will replace the name of all family members.

There are no expected risks or adverse effects for the participation in this study. If any emotional and/or physical distress should arise, the study may be paused or stopped at any time. Should you feel any emotional distress during the interview, you may request an additional consultation with a competent professional, who will not be the principal researcher.

You can withdraw from the study at any point, without having to give a reason. Withdrawing from the study will have no consequences. If you withdraw from the study or by any reason the researcher cannot continue, information collected up to that point will be destroyed.

This data will be part of a PhD research, but your name and your infant's name will not be used in any reports or publications resulting from the study. The data is collected for

academic purposes and is expected that material gained from this study will help us get a better understanding about individual experience of pregnancy and early infant life.

This study has been approved by the University of Essex Ethics Committee on 12/05/2021.

If you have any questions, concerns or complaints, please first contact the principal researcher of the study Oyku Turker, using the contact details below. If you still have questions or feel your concerns or complaints have not been satisfactorily addressed, or you feel you cannot approach the principal researcher, please contact her supervisor(s), using the contact details below. If you are still not satisfied, please contact the University's Research Governance and Planning Manager, Sarah Manning-Press (sarahm@essex.ac.uk). Please include the ERAMS reference which can be found at the foot of this page.

Principal researcher: Oyku Turker, Email: ot19081@essex.ac.uk / Telephone: 07342386938;

Supervisors: Arianna Pulsoni (arianna.pulsoni@essex.ac.uk); Sue Kegerreis (skeger@essex.ac.uk)

Data controller: University Information Assurance Manager (dpo@essex.ac.uk)

Appendix C: Consent form

Title of Project: Intrauterine Life and the Development of the Ego

Research Team: Oyku Turker (Principal Researcher), Arianna Pulsoni (Supervisor), Sue Kegerreis (Supervisor)

Please initial box

I confirm that I have read and understand the Information Sheet dated 23.04.2021 for the above study. I have had an opportunity to consider the information, ask questions and have had these questions answered satisfactorily.

I understand that my participation is voluntary and that I am free to withdraw from the project at any time without giving any reason and without penalty. I understand that any data collected up to the point of my withdrawal will be destroyed.

I understand that there are no expected or predicted risks but if any emotional and/or physical adverse effects should arise, the study will be paused or stopped all together. If any emotional distress arises, I understand that I may request an additional consultation with a competent professional, who will not be the principal researcher.

I understand that the identifiable data provided will be securely stored and accessible only to the members of the research team

directly involved in the project, and that confidentiality will be maintained.

I understand that my fully anonymised data will be used as a part of a PhD research and any possible publications resulting from it.

I understand that the data collected about me will be used to support other research in the future and may be shared anonymously with other researchers.

I give permission for the researcher to use audio recordings of the interview, anonymised transcripts, and notes about the infant observation.

I agree to take part in the above study.

Participant Name Date Participant Signature

Researcher Name Date Researcher Signature

Appendix D: Approval Letter from Ethics Board

Date: 12/05/2021

Miss Oyku Turker

Psychosocial and Psychoanalytic Studies, Psychosocial and Psychoanalytic Studies

University of Essex

Dear Oyku,

Ethics Committee Decision

Application: ETH2021-0032

I am writing to advise you that your research proposal entitled "Intrauterine Life and the Development of the Ego" has been reviewed by the Ethics Sub Committee 2.

The Committee is content to give a favourable ethical opinion of the research. I am pleased, therefore, to tell you that your application has been granted ethical approval by the Committee.

Please do not hesitate to contact me if you require any further information or have any queries.

Yours sincerely,

Louise Vincent

REO Governance team