

*Growing up in  
Technoculture: The  
Ontological and  
Perceptual Significance  
of Media in the Lives of  
Infants and Toddlers*

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I declare that this thesis is my own account of my research and contains as its main content work which has not previously been submitted for a degree at any tertiary education institution.

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## *Abstract*

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It is well documented that young children understand media differently to older children and adults, yet despite years of debate surrounding the psycho-social impact that media may have on children and youth, very little remains known about how they intercede into infants' and toddlers' lived experiences.

We cannot assume that media have no significance in the lives of infants and toddlers simply because they may not understand the content. The particularities of very young children's experiences of, engagement with and understanding of media cannot be expected to necessarily relate solely, or even primarily, to the media content. As an alternative this thesis focuses on the relations between very young children and media in terms of their material and corporeal effects and in this respect how media interfaces, as part of infants' and toddlers' environments literally mediate very young children's possibilities for perception and action within 21<sup>st</sup> century media saturated environments.

By focusing on children from birth to three years of age and their contingent material, physical environments, this thesis presents a chronology of child-technology relations as mediated relations which is necessary to understand the effect of media (conventionally understood) on their lived experience. In adopting an interdisciplinary ecological approach which relies on Maurice Merleau-Ponty's phenomenology (1962), Donald W. Winnicott's psychoanalysis (1957, 1960) and Don Ihde's post-phenomenology (1995), this thesis revolves around four central concepts: embodiment, transitional objects, holding spaces and both James Gibson's (1982) and Donald Norman's (1990) affordances to offer a complex understanding of the significance of media as material objects in the lives of infants and toddlers.

In doing so, it argues that media effect infants and toddlers in ways that are specific to the media themselves, the particular time and place in which they emerge and are used, and to babies' and toddlers' situatedness and capacity to act within the world.



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## *Introduction*

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## *Introduction*

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The rise of baby media over the past decade has been the result of multiple factors...Academic research on the impact of such media is just starting to accumulate, and the popularization of such research is relatively meagre (sic). However,...the question 'How does media exposure influence cognitive development?' may be the wrong starting point for a debate of the role that media exposure plays in cognitive development. A better question might be 'What are the mechanisms through which media interact with physical maturation, cognitive constraints, and environment (both physical and social) to influence cognitive development?' (Wartella, Richert, and Robb 2010, 125)

Recent years have seen an explosion of media marketed directly at the very young (Rideout, Vandewater, and Wartella 2003, 2; Rideout and Hamel 2006, Wartella and Robb 2010). Yet, despite a veritable industry in media analysis and criticism about the potential impact that this may have on children's psychosocial development, there has been surprisingly little research into the impact of media on children up to and including the age of three (Anderson and Evans 2001, 10, Rideout and Hamel 2006, 4, Wartella and Robb 2010, 116). Rideout et al. (2003) claim to know the 'effects' media have on older children, yet they concede, 'what we don't know is what effect media have on the very youngest children, who are at such a critical developmental stage'(12). In 2003 Rideout et al. were among the first to explicitly consider media use in relation to infants and toddlers when they examined what media are available to, and engaged with, by children up to the age of six.

Subsequently, there has been an increased interest in the particularities of the effects that media have on very young children. Much of this new research stems from paediatrics and psychology, and debates around the video deficit model which holds that children do not learn from two dimensional screen images as well as they might if they were interacting directly with a person in three dimensional space (Richert, Robb, and Smith 2011, Lauricella, Gola, and Calvert 2011, Hisrich and Blanchard 2009, DeLoache and Chiong 2009, Anderson and Hanson 2010, Tomopoulos MD et al. 2010, Mendelsohn et al. 2010). Many investigations focus on the impact of television viewing on language and cognitive development (DeLoache et al. 2010; Mendelsohn et al. 2010,

Zimmerman, Chrstakis, and Meltzoff 2007). As has been the trend in relation to research into children and the media, these debates remain embroiled in contradictory conclusions with some suggesting that due to video deficit it is unlikely that very young children can learn from television (Krcmar 2010) while others claim that infants and toddlers under the age of two ‘can learn cognitive, logical reasoning skills from a video presentation when the onscreen character is socially meaningful to them’ (Lauricella, Gola, and Calvert 2011). Others argue that the increased prevalence of technologies in infants and toddlers lives may act to scaffold very young children’s learning (Richert, Robb, and Smith 2011). Another line of argument suggests that the video deficit effect can be minimised with repetition of content (Barr 2010) or parent-child interaction during viewing (Mendelsohn et al. 2010). Although in the latter assertion the caveat is added that this only applies to educational content (Mendelsohn et al. 2010).

Nonetheless, next to nothing is known about how the proliferation of mediating technologies plays out in the lives of infants and toddlers (Barr 2008, 144).

Moreover, as Courage and Howe (2010) remind us:

Readers who are familiar with the long history of research on the impact of television on preschool and older children’s behavior and development will recognize the recurrence of a number of familiar themes and questions about the impact of these media on very young viewers...Although many of these questions have not only been asked but also answered with regard to preschoolers and older children, they have received renewed attention in relation to the issue of infant and toddler television viewing. (Courage and Howe 2010, 104)

This thesis contributes to the emerging field of research surrounding very young children and the media. Not, however, by focusing on whether the content or the act of engaging with media impacts infants and toddlers *cognitive* development, but rather by concentrating on the *ontological* and *perceptual* significance of media in the lives of those under three. In doing so, this thesis argues that infants and toddlers fundamentally engage with media interfaces simultaneously as material and culturally embedded objects, at the level of their embodied being, and that such engagement mediates how they may experience themselves and the world. Through my analysis of the human-technology relationships which babies and toddlers have with the material elements of their environments I argue that



the connection which we all have with media begins as one which is primary and carnal.

Before proceeding further, the terms ‘infant’ and ‘toddler’ deserve a few words of clarification. ‘Toddler’, as the name suggests, is ‘a person who toddles, especially a young child learning to walk’ (Dictionary.com). Donald Woods Winnicott, whose work figures prominently in this thesis, suggests that the term ‘infant’ comes from the French ‘*infans* [which means] “not talking” and [hence] it is useful to understand infancy in terms of “the phase prior to word presentation and the use of symbols”’ (Winnicott 1972, 40). Taking these definitions as a starting point, this thesis explores the relations between media and children at an age prior to language acquisition and those who are literally finding their feet or finding where and how they stand within the world.

Not only has much of the research done in relation to children and the media focused on either pre-school children (those older than three) or older children, and unproblematically applied its findings to infants and toddlers or disregarded this age group altogether, it has primarily concentrated on ‘high’ technologies such as television, computers, the internet, and video, console and computer games<sup>1</sup>. Yet, these ‘high’ technologies represent only a small and relatively specialized type of technology. Focusing on ‘high’ technologies does not account for the socio-equipmental environment of which media is only a part. The term ‘socio-equipmental environment’ is adapted from Martin Heidegger’s term ‘equipment whole’, ‘equipment totality’, or ‘equipment structure’ (Heidegger 1927/1962, 97-98). For Heidegger, objects can only be understood as the type of tools or equipment they are in relation to a background of other devices of which they are a part. For instance, a modern feeding bottle does not appear devoid of its concomitant technologies of teats, sterilising solutions, infant formulas, heating

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<sup>1</sup> See for example Hodge and Tripp 1986; (Wilson 2009);(Palmer 1986);(Strassburger, Wilson, and Jordan 2009);(Plowman, Stephen, and McPake 2010, Courage and Howe 2010, Valkenburg and Vroone 2004, Dawson 2007, Roberts and Howard 2005, Rose 1998, Calvert, Jordan, and Cocking 2002, Seiter 1998, Valkenburg 2004, Heim et al. 2007, Turkle 2000, Buckingham and Willett 2006, Attewell, Suazo-Garcia, and Battle 2003, Richards and Turner 2001, Palmer and Young 2003, de Block and Buckingham 2007, Jenkins 1999, Subrahmanyam et al. 2000, Pange and Kontozisis 2001, Becker 2000, Vessey and Lee 2000, Grossman 2000, Spigel 1998, Marsh 2005a, Pahl 2005, Kapur 1999); (Anderson and Hanson 2010).

devices, bottle brushes and so on which help to define them as an assemblage of feeding technologies. These technological ensembles are also embedded in a wider array of equipment including houses. Stephen Mulhall explains that the term ‘equipmental whole’ emphasises that:

encountering any object as a piece of equipment presuppose[s] an equipment totality, i.e. that no individual tool could be encountered as such except against the background of an array of other items. (Mulhall 2005, 171)

However the term also implicates the activities of humans, in the manufacture, design, use, marketing and perception of the equipment totality. Hence, I have adopted the term socio-equipmental environment to encapsulate the intertwining of humans and technologies in action. Adopting this term allows for the interconnectedness of an assemblage of technologies and their situatedness for very young children’s involvements with them in particular socio-cultural and historical contexts.

Counter to a focus on ‘high’ technology, like post-phenomenologist Don Ihde, I take technology to mean more broadly, a material element, or object, which also enters into human praxes and so includes the *relations* that exist ‘between the technologies and the humans who use, design, make, or modify the technologies in question’ (Ihde 1993). While acknowledging the breadth of his definition of technology, Ihde notes that it is not as broad as definitions ‘which make technology equivalent to any calculative or rational *technique*’ (47). Ihde’s definition which emerges from a phenomenological perspective examines experiences, specifically of human-technology relations. Thus, in adopting his definition we may access a broader appreciation of technological mediation, and a more comprehensive consideration of the socio-equipmental environments that very young children come to inhabit. As David Kaplan points out:

Our lives are filled with technologies. They are everywhere. We live in them. We prepare food with them. We wear them as clothes. We read and write with them. We work and play with them. We manufacture and purchase them [and with them]. Our world is largely a constructed environment; our technologies and technological systems form the background, context, and medium for our lives. (Kaplan 2009, xiii)

The above quote signals how technologies envelop us as well as reiterating Ihde’s definition which permits consideration of the mediating capacity of

even basic technologies such as clothing and feeding technologies, or even sticks or pieces of fabric as technologies with specific mediating effects (Ihde 1990). Not only does Ihde's definition enable examination of a broader range of technologies but it also recognises, as Peter-Paul Verbeek (2009) tells us that 'by mediating human experiences and actions, technologies help shape the quality of our lives' (Verbeek 2009, 227). Technologies, thus, may be understood as media, in the sense that they mediate. In recognition of the mediating capacity of all technologies, throughout this thesis, the term 'mediating technologies' will be used to describe those things which are not generally considered media (things such as cots, feeding bottles, playpens and walkers) while the term 'media' will be used to indicate our traditional understanding (television, computers, or mass media) of the term. Although I speak to the field of children and the media (conventionally understood), by considering how a range of technologies enter into our childrearing practices, I will argue that the mediating characteristics of objects determine how any material object, or mediating technology, enters into infants' and toddlers' experiences of the world, configuring very young children's being-in-the-world and being-with-others.

As well as focusing on 'high' technology or mass media much of the literature in the broad field of children and the media primarily attends to issues of media *content*, considering the potential impact or otherwise that media *messages* have on developing children via language or cognition, as can be seen in the quote at the beginning of this introduction<sup>2</sup>. Based on the assumption that very young children are pre-linguistic and pre-cognitive, such an approach tends to leave the significance of the materiality of mediating technologies in relation to infants' and toddlers' lived experiences within their socio-equipmental environment unexamined. For instance, a highchair may hold an infant or toddler, thus mediating their capacity to move from place to place, constraining and enabling

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<sup>2</sup> See for example (Hodge and Tripp 1986); (Strassburger, Wilson, and Jordan 2009); (Caruso 1999, Buckingham 1993a, Smith 2005, Collins 1979, University of Western Sydney and Australian Broadcasting Authority 2000, Soukup 2006, Jordan 2001, Palmer and Young 2003, Anderson and Hanson 2010, Jenkins 1999, Roberts et al. 2004, Kinder 1999, Dawson 2007).

certain orientations, postures and gestures, yet a highchair rarely enters into discussions of children and the media. Moreover, if we introduce a television, a bottle or a toy, the experience of being in a highchair takes on a new complexion and complexity. Nevertheless this complexity is not generally considered in debates surrounding children and the media.

As I will argue, from a phenomenological perspective, the ways in which material objects enter into our experiences of the world, are fundamental to all of our dealings with mediating technologies *and* media, allowing us, therefore, to take account of technologies which are traditionally left out of the gamut of ‘media’, and hence media studies. To isolate the content of the aforementioned ‘high’ technologies, or mass media, overlooks the ways in which media and mediating technologies are embedded in socio-equipmental environments and the relationship that infants have with the world and its components: a relationship which predates any comprehensive cognitive and linguistic understanding very young children may subsequently gain of media content.

In order to facilitate this type of analysis I will rely on Maurice Merleau-Ponty’s phenomenology of embodiment, with particular emphasis on the concepts of being-in-the-world, the corporeal schema and incorporation (1962). This will be supplemented by Ihde’s post-phenomenology of human-technology relations (1979) and how they mediate our lived experiences of and within-the-world. D.W. Winnicott’s psychoanalysis, especially his account of transitional objects (1980), the facilitating environment and infant development (1972) will also be used to enhance this theoretical approach. In addition, both James Gibson’s (1982) and Don Norman’s (1990) notions of affordance will be explored to take account of the specificity of very young children’s embodiment in relation to mediating technologies. Finally, the study of material culture will enhance our understanding of the ways in which child-rearing artefacts are culturally inflected (Tilley 2006). This thesis, therefore, suggests an alternative approach to content-based analytical frameworks and asserts that media do affect even very young children, at the level of their lived, corporeal experiences in and of the world. While not completely disregarding media content it will only be considered as it

relates to a particular medium and its mediating possibilities, since as Marshall McLuhan so aptly put it, ‘the medium is the message’(McLuhan 1964).

Before elaborating on the methodology this introduction will briefly examine some of the key themes in the debates which have emanated from the broad field of children and the media, and suggest that while volumes have been written with insights of varying significance, the approaches adopted are inadequate to an in-depth analysis of the potential impacts that media and mediating technologies may have on very young children. An alternate methodological perspective which enables us to consider the unique human-technology relations specific to very young children will be prefaced and then elaborated throughout this thesis. Prior to concluding I will offer an overview of the upcoming chapters.

### ***Discourses Surrounding Children and the Media***

It is worthwhile examining the debates surrounding children and the media as a means of identifying the potential and pitfalls in the various discourses that surround this contentious field. As David Buckingham, one of the most prolific writers on children and the media, points out, debates surrounding media forms and content date back to the time of Plato (Buckingham 1993b, 4). Throughout these ongoing arguments, both in academia and popular cultural discourses, the underlying recurrent theme has been a concern about the effect they have on ‘other’ people ‘who are seen to be too immature or simply too feeble-minded to resist the negative influence of the media’, namely children (Buckingham 1993a, 4). Toby Miller also tells us that in the early twentieth century academia initiated ‘decades of obsessive attempts to correlate youthful consumption of popular culture with anti-social conduct’ (Miller 2009, 242). Yet, as Wartella and Robb (2010) suggest, the advent of every new media technology over the last 100 years or so, comes complete with both promises and fears about the potential impact on children’s development (Wartella, Richert, and Robb 2010, 7). They suggest that:

How the movies, or radio, or television, or computers would fundamentally alter the way children learn – making children smarter at younger ages or making learning easier and more accessible to more children – have been recurring claims. Juxtaposed to these are the naysayers who decry children’s time spent with media content that is morally questionable – too much sex,

too much violence, too commercial. In many places this history of recurring controversies that surround the introduction of each of the mass media of the twentieth century has been recounted. (Wartella and Robb 2010, 7)

It should not surprise us that research surrounding children and the media is steeped in incongruity, for as Graeme Turner argues, our own common sense attitudes towards media are embroiled in similar contradiction (Turner 1993). We hold that media are at the same time ‘trivial *and* powerful’, believing that they can *teach* us, but more explicitly children, both pro- and anti-social behaviour while at the same time we tend to consider audiences as both intellectually and imaginatively passive, and that television in particular is a form of ‘dumbed down’ culture (205). Hence, much of the recent discourse surrounding children and the media has focused on media literacy as can be witnessed in the following quote from Victor Stasburger:

Finally, media education is crucial. A century ago, to be ‘literate’ meant one could read and write. In 2009, to be literate means possessing the ability to text-message, IM, surf the Web, as well as *decipher a bewildering array of media* including books, radio, TV, movies, music and videos. (Strasburger 2009, 5 emphasis added)

Debates, both in academia and the popular press, around the effects that media have on children continue to flourish. On one side of the debate are the pessimistic accounts of imitative violence (Singer 2009), the increasing commercialization of childhood (Kline 1998, Strassburger, Wilson, and Jordan 2009), the sexualisation of childhood (Rush 2011, Ianotta 2008), exposure to substance use and abuse (Strassburger 2010), childhood obesity (Jordan 2010), attention deficit disorders, (Ray and Jat 2010), eating disorders (Harrison and Hefner 2008), repetitive strain injuries and the popular myth of square eyes. For some, media are like hypodermic needles, filled with toxic meanings which corrupt the minds of the young, causing children to become dysfunctional (Winn 1977). As Kinder (1999) suggests, such alarmism contends that:

children’s media is somehow transforming our kids into a mass of dumbed-down zombies and killers, in contrast to ‘the good old days’ when children were vibrantly active, creative and innocent. (Kinder 1999, 2)

On the other side of the debate is the position often taken by advertisers, media producers and some educators in their claims that various media products are educational, providing a window to the world, and teaching children numeracy, literacy and social skills (Plowman, Stephen, and McPake 2009). These arguments are supported by a number of studies which suggest that technology-based activities for youth and their families yield improvements in ‘reading, mathematics, computer knowledge, following directions, and grammar’, that children who participate in these activities score higher in tests at school (Subrahmanyam et al. 2000, 127), and that those teenagers who have home computers are between six and eight per cent more likely to graduate high school than those who do not (Fairlie, Beltran, and Kuntal 2010).

Traditional criticism of media effects often relies on statistical methodologies which concentrate on a particular element or elements of media content such as substance use, violence, pornography or other arguably anti-social behaviours, which are singled out for study and possible censorship (Kinder 1999, 3). Adherents to this tradition often rely on methods such as content analysis which ‘breaks down the components’ of media content into countable units from which correlations are deduced (Turner and Cunningham 1993, 209). This type of approach leads us to encounter such inconsistent claims that media cause children to become ‘dumbed down zombies’ (Kinder 1999, 2) while simultaneously teaching them the alphabet, numbers and colours (Hendershot 1999). This inconsistency has led many to suggest that it is the nature of the content which carries the burden of causality: good content delivers good outcomes and bad content yields bad effects (Strassburger, Wilson, and Jordan 2009, Plowman, Stephen, and McPake 2009). Due to ‘a propensity to derive simplistic explanations based primarily on quantitative correlations’ (Buckingham 2008, 221), such methodologies are inadequate for analysing the complexities of the ontological and perceptual significance of mediating technologies in the lives of infants and toddlers.

When content carries the burden of causality, despite age and capacity to understand, there is an attendant assumption that everyone sees and

interprets the same content in the same way. In this way it universalises the audience, a supposition which cultural studies has countered (Hodge 1986). One of the fundamental problems, therefore, with either the positive or negative effects model is the presumption that the process of making meaning is the same for all people, and this is precisely why it cannot apply to very young children, whose meaning-making happens in ways that it does not in adults. This is even more prevalent in the small amount of research that has been done in relation to infants, toddlers and the media who are considered to lack the capacity to differentiate between positive and negative media messages (see for example Jordan 2001, Anderson and Hanson 2010, Senju and Csibra 2008, Rideout and Hamel 2006).

The effects tradition of media criticism also underplays the significance of the contextual specificities of children's media consumption—whether they are in a playpen on their own watching, sitting with others, glancing at the screen while playing, or even licking the screen, which are all crucial to understanding the relation between mediating technologies and very young children.

Whether we adopt the optimistic view of some educators, parents and advertisers or the negative view of lobbyists, psychologists, other media theorists and parents, we remain ensconced in a stalemate which derives from the notion that media *cause* various behavioural, developmental or psychological effects in children; effects which are not as prevalent in adults or older people. To attribute causality to media messages in this way is tantamount to content determinism, whereby the content of any media determines outcomes, a view that is dominant in psychology and paediatric discourses. Nevertheless, we should be careful not to dismiss the notion of media effects out of hand as it remains a well-documented and researched field of inquiry which has been 'perhaps rather too hastily...condemned in some quarters' (Buckingham 1996, 5).

This thesis does not suggest that media content has no effects, but rather it exceeds the effects model by examining the materiality of media as part of a



spectrum of mediating technologies, and the ways they configure spatial and interpersonal relations, and places of engagement, just by 'being there.' In Ihde's terms, technologies are co-opted into our experiences: we see and engage the world with them as a human-technology couplet (1975).

However, the effects tradition as it has been framed and practised, particularly in behavioural psychology of stimulus and response, suggests that children's interpretations of media *or* mediating technologies has nothing to do with the materiality of the devices. As such it is not helpful to our understandings of the ways that infants and toddlers interact with their environment, which is at a material and sensory-affective level.

In an attempt to counter arguments of media effects, much of the research emanating from cultural studies has examined the vested interests served by various constructions of childhood. Constructions of childhood are important, not only because they shape our understanding of what is at stake in the debates surrounding this or that effect of media, but also because childhood, constructed as a natural and universal category of being, which is distinct from adulthood, informs the way children are treated, what is expected of them and the fears that are held for them (Prout 2008). As Karen Calvert points out:

Members of any society carry within themselves a working definition of childhood, its nature, limitations, and duration. They may not explicitly discuss this definition, write about it, or even consciously conceive of it as an issue, but they act upon their assumptions in all of their dealings with, fears for, and expectations of their children. Every culture defines what it means to be a child, how children should look and act, what is expected of them, and what is considered beyond their capabilities. (Calvert 1998, 69)

While definitions of childhood may not necessarily be overtly discussed, or even thought about in everyday practice, they nonetheless underscore behaviour in relation to children. The association of childhood with primitivism, irrationalism, prelogism and innocence are inherent in our concepts of childhood, and these have passed from 'the theories of psychologists, pedagogues, psychiatrists and psychoanalysts into public opinion' (Ariès 1988, 56). Notions of childhood innocence, for instance, have led to two kinds of attitude and behaviour towards childhood: one

which seeks to protect childhood from life's corrupting influences and the other 'strengthening it by developing character and reason' through education (Ariès 1988, 56). Both positions have led to the type of content determinism referred to earlier. Yet this, like the effects tradition tends to elide children's perspectives and agency.

An important contribution to come out of cultural studies is an affirmation of the child as agent. For the study of children and the media 1986 represented somewhat of a watershed, with two influential works coming out of Australian cultural studies; *The Lively Audience: A Study of children around the TV set* by Patricia Palmer (1986) and *Children and Television* by Bob Hodge and David Tripp (1986). In what follows, I will examine the major contributions of these two works and outline why, despite their value to the field, their methodological approaches are not suited to an exploration of the ways in which media and mediating technologies figure in the lives and experiences of infants and toddlers.

Adopting a developmental approach, cultural studies theorists Patricia Palmer (1986), and Bob Hodge and David Tripp (1986) broke new ground in distancing themselves from the effects tradition. Hodge and Tripp's developmentally informed semiotic approach made a valuable contribution to the debate, facilitating a more complex and subtle understanding of the meanings children make of media content (Hodge and Tripp 1986, 7). This yielded useful insights arguing, for instance, that 'children's ways of thinking may be qualitatively different at different stages of their development' (7) and that children's cognitive and semiotic capacities continue to develop at least up until the age of twelve (214).

Semiotics, which informed Hodge and Tripp's (1986) methodology, became a favoured method of analysis in the second half of the twentieth century and drew respectively from the works of Charles Sanders Peirce (Peirce 1991) and Ferdinand de Saussure (de Saussure 2006) and constitutes what has been termed the 'linguistic turn' which was concerned with the structural characteristics of language in constructing and transmitting meaning (Bouissac 2004). Semiosis

relies on practices of coding and interpretation (Barbieri 2012). In response to what he recognised as a ‘certain blindness to the importance of non-verbal signs both within and without the linguistic,’ Horst Ruthrof coined the term, ‘corporeal turn’ which is indebted to Merleau-Ponty’s phenomenology and particularly to ‘the primacy of perception’ (Ruthrof 1997, xii) and is a turn towards modes of analysis which emphasize the primacy of embodiment. With its reliance on cognitive and linguistic theory Hodge and Tripp’s (1986) analysis cannot explain the way that very young children perceive and experience— i.e. embody—media as part of socio-equipmental environments that include a range of mediating technologies.

In her analysis Palmer (1986) also adopted a developmental methodology which enabled her to conclude that due to experiential and developmental differences, children ‘see’ and understand media messages differently depending upon where they are located along the developmental continuum. Palmer rightly contends that, ‘what children gain from television depends very much on the child’s age and social experience’ (Palmer 1986, 2). Like Hodge and Tripp (1986), Palmer (1986) recognises that if viewers are considered as active meaning makers, and that activity is different for different people, at various developmental stages, the crude correlations, which conflate all users, such as those primarily relied upon in media effects models ‘will not tell us much of what we want to know’ (Hodge and Tripp 1986, 8). Despite their recognition that age and social experience are crucial to unpacking how children understand media neither Palmer (1986), nor Hodge and Tripp (1986), investigate the significance of media in the lives of infants and toddlers, focusing their attention instead on pre-school and school aged children, and relying on understanding these children’s cognitive understanding of the content.

Cognitive models of developmental psychology such as those used by Palmer, and Hodge and Tripp, rely on an understanding of learning and knowledge that assumes that high order intellectual knowledge is the *only* way that we can know the world, a position which separates feeling from knowing. Such an assumption is symptomatic of a particularly Western modern model of knowledge which insists that, ‘every relationship we have with[in] the world, even the most

primitive or abstract, must cross the threshold of the thinking “I” ’ (Mansfield, 2000: 18). Developmental approaches informed by psychology (see for example Jean Piaget 1967 and Lev Vygotsky 1986), offer insights into the ways that infants’ and toddlers’ conceptualise the world in particular developmental stages, but not the ontological and perceptual import of media as it relates to very young children’s experiencing.

The notion that our bodies are the inconsequential containers of ‘potentially autonomous mind[s]’ (Richardson and Harper 2002) permitted by Descartes’ *ego cogito [ergo] sum*—I think therefore I am is an implicit assumption which underpins much of the literature surrounding the intersection between media and children’s development. This assumption infers that media content should be the primary target of analysis, but I argue that such analysis overlooks the centrality of bodies in knowledge production, as well as the ontological and perceptual significance of media and mediating technologies in the lives of infants and toddlers. Merleau-Ponty’s phenomenology allows us to redress this oversight and restore infants’ and toddlers’ bodies to their essentiality in the epistemic process.

As Hargrave and Livingstone (2009) suggest, one of the most problematic aspects of the ongoing debates surrounding children and the media ‘is the markedly simple, even simplistic nature of the questions often asked about the effect of the media... (e.g. Is television bad for children?)’ (Hargrave and Livingstone 2009, 42). Such questions can only ever yield hesitant assertions of ‘yes...and no’. Hence, as Wartella suggests in the quote at the beginning of this introduction, we have been asking the wrong questions and a more complex approach is needed, which takes account of the multiple and multifaceted relationships that very young children have with mediating technologies, to facilitate a more comprehensive understanding of the ways in which they are part of very young children’s maturation and lived experiences (Wartella, Richert, and Robb 2010). As a consequence of starting out from the relatively simplistic ‘are media bad for children?’ the debates remain at an impasse surrounding passivity versus activity, as well as the types of causal *effects* that media may have on children.

One way to go beyond such approaches is to consider the artefactual constructedness of childhood, and how very young children's socio-equipmental environments comprise a complex intertwining of language, objects and embodiment, and are contingent upon ideas of what a child is and is not, and what they can and cannot do, be or access (Prout 2005). Studying very young children's socio-equipmental environments enables us to move away from simplistic notions of effects in media analysis. Importantly, this thesis also explores the ways in which the child and mediating technologies come together to act upon the world. Attending to infants' and toddlers' socio-equipmental environments thus intentionally apprehends children's perspectives and agencies. Hence, socio-equipmental environments of childhood will be used to inform our understandings of the ways in which infants' and toddlers' bodies are acted upon *and* enacted in particular socio-cultural contexts (Dolezal and Hyland 2008).

### ***Very Young Children and the Media***

As mentioned previously, while there have been vast quantities of literature written about the potential impact that media may have on children's development, there remains very little devoted to children up to and including three years of age. An examination of the literature surrounding children's online access conducted in 2013, for instance, reviewed 1200 studies, of which twenty per cent included children under nine years of age, and 'only 4% included children aged birth to four years old' (Holloway, Green, and Livingstone 2013).

Despite recognizing developmental specificities in ways of interpreting media content, the trend of overlooking infants' and toddlers' understandings of media persists in much of the research in the field (see for example Strassburger, Wilson, and Jordan 2009). Even in the literature which does make some distinction between pre-school children, school aged children, youth and adolescence such as Strassburger, Wilson and Jordan's (2009) *Children, Adolescents, and the Media*, there remains scarcely a mention of infants and toddlers. This may, in part, be due to a reliance on a semiotic model of media representation with its reliance on textual and linguistic meaning, or it may be that

many of the standard ethnographic methods cannot work in relation to infants and toddlers. Regardless, there remains a gap in the literature surrounding the ways in which a range of media and mediating technologies are co-opted into infants' and toddlers' experiences of the world and the human and non-human others within it. Indeed, much of the work done in the field holds that findings related to older children can be unproblematically applied to very young children (see for instance Anderson and Evans 2001). This is reflected in the American Academy of Paediatrics' (AAP) prediction that 'negative effects would also occur when exposure occurred at a younger age', and their consequent recommendation, based almost entirely on what is said to be 'known' effects that media have on older children, that children under the age of two should not be exposed to screen media at all (Barr 2008, 143). Such a proposal is clearly impractical, particularly if the child in question cohabits with older children. Rather than advising a ban on screen media for very young children, we would be better advised to attempt to gain deeper insights into the ways that very young children come to understand the world in conjunction with mediating technologies. The AAP's position relies on a construction of children as pre-adults with limited agency, imprinted by screen content, and hence does not acknowledge the lived reality of media engagement.

One example which does address the specificities of early childhood, is Jackie Marsh's edited collection, *Popular Culture, New Media and Digital Literacy in Early Childhood* (Marsh 2005b). Marsh's collection focuses on children from birth to eight years with a purported 'predominant emphasis on children in the first five years of life' (Marsh 2005a). While many of the works in the collection are also based on textual, linguistic models of media analysis, Marsh's chapter goes some way to recognising the important role that media, in this particular instance, digital toys, may play in the material mediation of very young children's experiences of the world:

Children's fascination with material objects has been the centre of concerns about the future of childhood itself, with nightmarish vision being presented of contemporary children surrounded by an array of potentially harmful and limiting electronic toys and gadgets. While it was clear throughout the two studies discussed in this chapter that material cultural objects held a strong

fascination for children, there was no evidence that they had developed harmful responses to such items, nor was there evidence of the existence of children for who commodity fetishism was out of control. These items played similar functions to more traditional soothers (e.g. teddy bears); the key difference was that these contemporary 'transitional objects' were more directly linked to a whole array of cultural and material goods in children's lives. (Marsh 2005c, 38)

Marsh acknowledges that electronic toys along with other tangible, yet culturally embedded 'goods' function in much the same way as transitional objects, which is one aspect of the argument forwarded in this thesis. The concept of transitional objects emerged from DW Winnicott's psychoanalysis (1980) and will be used throughout this thesis, to argue that mediating technologies and media function in much the same way. Suffice to say at this point that Winnicott places emphasis on how transitional objects facilitate maturity, entering into the gradually widening space between carer and child, enabling infants to ultimately arrive at the understanding that they are both discrete and interconnected entities within the world (Winnicott 1980). Transitional objects are infants' first 'not-me' possessions, which must be able to withstand affection and aggression, and must have some of the characteristics of liveness, whether that be warmth or movement. Importantly, such objects occupy the space between carer and baby as a consolatory presence in the process of maturation from total dependence to relative independence (Winnicott 1980). As Marsh implies, in the foregoing quote, transitional objects exist along a continuum of mediating technologies that spans from soothers to digital media, a theme which will be developed throughout this thesis.

Marsh also relies on the notion of intertextuality, in which media forms are treated as interconnected legible texts which can be 'read', an approach difficult to apply to preverbal and precognitive children. 'Intertextuality' is a Bakhtinian (1981) term which Marsha Kinder appropriates to further her argument about the transmedia effect, especially as it relates to children's media experiences. Explaining the concept, Kinder points out that any individual text: 'is part of a larger cultural discourse, and therefore, must be read in relationship to other texts, and their diverse textual strategies and ideological assumptions' (Kinder 1991, 2) which resonates with our understanding of an 'equipment totality'.

Yet as an ‘equipment whole’ is woven through the texture of everyday I would suggest that infants, toddlers, and indeed all of us, also understand media in relation to *intertextuality*. The term ‘texture’ derives from the Latin *textura* which is interestingly, equivalent to our term ‘text’ (Dictionary.com) and refers to the qualitative characteristics of an object. Particularly in relation to infants and toddlers it is more appropriate to consider *intertextuality* and experience than it is to rely on intertextuality. Taking account of children’s experiences at this age at the sensori-motor-affective level, *intertextuality* places greater emphasis on sensori-material elements of experience, eliding the distinction between embodiment and cognition. In suggesting that children understand the media only in reference to past linguistic utterances overlooks the potential to understand in reference to past sensorial experiences, rhythms and patterns of everyday life facilitated by mediating technologies.

Another significant contribution in Marsh’s edition is that of Susan Roberts and Susan Howard (2005) whose chapter relates the findings of their observations of children watching *Teletubbies* (Roberts and Howard 2005). Roberts and Howard (2005) focus specifically on children under the age of two years. Their approach is also significant in that it acknowledges the sensory-affective element of very young children’s engagement with *Teletubbies*, elaborating on children’s embodied responses to the content which as we have seen is only one aspect of children’s socio-equipmental environments.

If we consider media and mediating technologies along an experiential continuum this permits us to include things such as playpens, cots and highchairs for example, as aspects of a broader socio-equipmental environment, which is devoid of content as we would generally understand it. Hence developmental, textual approaches, while taking some acknowledging the specificities of children’s developmental stages, cannot be used to further our understanding of the ways in which media and mediating technologies are intricately involved with very young children’s growing understandings of themselves in relation to their environment. Understanding the socio-equipmental environment which infants and toddlers come to inhabit requires a particular set of conceptual tools which will be elaborated upon in what follows.



## ***Methodology: Embodiment, Transitional Objects, Materiality, Holding Environments and Affordances***

While the paucity of research which deals with infants, toddlers and the media is one motivation for focusing on children from birth to three years of age, another is the importance of early childhood experiences to inform the adult life that follows it. The Australian Early Development Index<sup>3</sup> for instance tells us that ‘it is well known that what happens to children in the early years has consequences right through the course of their lives’ (2011) and that the first two to three years of a child’s life lays the foundation for all subsequent action and relationships. To understand children’s understandings of media, we need to move beyond textual and cognitive based theses to approaches that include sensory perception and lived experience.

There are a number of theoretical perspectives which inform this thesis: phenomenology, post-phenomenology, psychoanalytic theory and the study of material culture with their attendant concepts. Phenomenology allows us to approach the topic without assumptions about very young children’s ‘lack’ in relation to understanding, but rather acknowledges that in the first instance we are all embodied beings involved within the world and that the only access we have to the world is by virtue of our embodiment and the types of bodies we are (Merleau-Ponty 1962). Ihde’s post-phenomenology extends and contextualises phenomenology, informing our understanding of the mediating potential of all technologies, the cultural specificity human-technology relations, and how these are played out in our lived existence (Ihde 1990). Psychoanalytic theory provides a comprehensive approach to early childhood development and the ways in which infants transition into older children and ultimately adults *in relation to* objects (Winnicott 1957). The study of material culture facilitates an understanding of the socio-political implications of production and consumption of material objects (Tilley 2006). Within material cultural approaches, two quite different notions of affordance simultaneously enable us to understand the specificities of very young children’s embodiment in relation to mediating technologies as part of the broader

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<sup>3</sup> The Australian Early Development Index is an adaptation of a Canadian data collection and research instrument designed to assess developmental health of very young children.

ecology of human-environment relations (Gibson 1986) *and* how objects are designed, for adults and children, to induce preferred modes of engagement (Norman 2007).

While we may come to understand media in terms of the messages they carry, this can only be arrived at through our fundamental embodied relationship with objects and spaces within the world—what phenomenology defines as a relational ontology. Throughout this thesis, I will draw on phenomenology of embodiment, psychoanalysis, post-phenomenology, and the study of material culture with particular emphasis on the concepts of embodiment, materiality, transitional objects, holding spaces and affordances. The adaptation and combination of these concepts aims to provide a corporeal schematic of the way the world is for infants and toddlers in developed economies, in the early twenty first century, with its attendant mediating technologies. In doing so I argue that the particularity of infants’ and toddlers’ material conditions of existence, the environment(s) they inhabit, and the things that coexist in those spaces along with them, mediate what, and how children may experience the world, significantly from their own locatedness and capacity to act within it.

While this thesis is primarily theoretical, it will be supplemented by anecdotal examples and illustrations taken from my own experiences and the observations I have made of my own children and their friends, and of the children and families who participated in this research. The use of interviews with and observations of four Perth (Western Australia) families of various configurations, with children under the age of three offers ‘real world’ anecdotal examples of the theoretical concepts.

Our first family consists of fourteen month old Seb<sup>4</sup> and his single mother, Kate, who live with Kate’s mother in a detached three bedroom, single level home in the inner Northern suburbs. The communal space of the home consists of a combined kitchen and dining room which leads into the lounge room. The lounge

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<sup>4</sup> The names of the participants have been changed to protect their anonymity.

room contains a lounge suite, some of Seb's toys, his small lounge and a television placed high up on a wall unit. The rooms in this home are modest in size.

Another of the families includes eighteen month old Cassie, her five year old sister, Sara, and their parents, Linda and Philip. They also live in a three bedroom single level detached home. This home has a dedicated television room which is separate from other communal spaces. The kitchen is a country-style 'eat-in' room which opens onto two other living spaces, one of which is used as a study and contains several computers and game consoles (Philip is studying new media) and is joined to a family room which contains a stereo and occasional furniture.

Twins, Emily and Kane, are seven months old and live with their parents Emma and James, four year old brother, Jeremy, and three year old sister, Kaitlin. Their home is also a three bedroom single level detached home which has a lounge room that opens into a dining room and kitchen. James' office is located beyond the dining room in an area that was an addition to the home and is able to be closed off by a door. The lounge room contains some of the children's toys, two lounges which face each other and a television in the corner. Emma and James have a home theatre in the converted garage.

Eight month old Molly is also one of four children, and has a six year old brother, Michael, a four year old sister, Amy and a two year old brother Jacob, who live with their parents Christine and Steven. Their newer and larger single level detached home has four bedrooms, two bathrooms, a study, a family room and a play room. The communal space incorporates the kitchen, dining room, family room which is separated from the play room by double doors. Despite having a dedicated playroom much of the family's activity is conducted in the open plan kitchen, dining and family room area which has a lounge suite, a television and DVD player as well as a playpen.

The observations of the children, and interviews with their parents, will be used to highlight the disjuncture between adult cultural assumptions and children's actions which are not typical affordances, and also to illustrate the ways in which mediating technologies enter into the everyday life experiences of the families.

The approach that I will use is similar, although not identical, to what Pink (2011) terms ‘phenomenological anthropology’, or ‘sensory ethnography’ (Pink 2011, 271). The method, ‘involves the researchers’ empathetic engagement with the practices and places that are important to the people participating in the research’ (Pink 2011b, 271). Pink is critical of multimodal scholarship which she suggests, ‘tends to understand communication on two levels, and as happening through the relationship between what they call ‘modes’ and ‘media’’ (Pink 2011, 261). It often seeks to gain understandings in semiotic terms, which Pink urges us to go beyond:

observation and data collection to attend to the ways in which we might reflexively draw on our own existing biographical experiences...in order to imagine and recognize our sensory embodied responses to other people, objects, textures and more. (Pink 2011, 266)

Hence while scholars who consider multiple modes of communication adhere to a cultural construction of a differentiated sensorium from which cultural meaning can be read, Pink’s phenomenological anthropology not only appreciates that the senses are interconnected but also that they are not necessarily distinguishable (Pink 2011, 268). This is particularly the case with very young children who cannot verbally articulate experience. While this thesis cannot strictly be considered a phenomenological anthropology, the value of Pink’s sensory ethnography as a method of analysis remains useful to a post-phenomenology of very young children and the media in that these ‘innovative methods that are currently emerging have an emphasis on mobility, affect, empathy and knowing’ and moreover engage with a number of ‘media and methods adapted to specific circumstances, persons and projects’ (Pink 2011, 274) . Moreover, it is consistent with the phenomenological method of ‘thick description’ which is a detailed account of phenomena as well as the context in which they appear (Merleau-Ponty 1962). Hence, while my approach is primarily theoretical, photographs of the children and excerpts from interviews with family members who participated in this research will be supplemented with photographs from my own collection as well as accounts of my own experiences and observations to provide illustrative examples to situate the theory within actual contexts.

## ***Chapter Overview***

As media and mediating technologies are a part of infants' and toddlers' lives that we need to understand, in Chapter One, I will expand on the theoretical underpinnings of this thesis, as outlined above, in greater detail, reaffirming the fundamental tenet of Merleau-Ponty's phenomenology as the primacy of embodied being-in-the-world. From there I will outline how the only way we can come to grips with the world is through our embodied engagement with it, and that this is not a disinterested or unilateral action. The world and its elements concern us and touch us, just as we concern and touch them. Consequently, Merleau-Ponty's reversibility thesis will be discussed as a way of counteracting any charges of technological determinism which may be raised. As previously suggested, elements of Ihde's post-phenomenology will be used to show that embodiment is culturally embedded. Winnicott's psychoanalysis will be discussed in terms of how it supplements phenomenology as a way to effectively explore how objects mediate very young children's experiences in the world. The study of material culture and the notion of affordances will be allow us to understand the body-environment relation in context taking greater account of the specificity of very young children's embodied perception.

In the subsequent chapters I will examine in detail various aspects of the socio-equipmental environments that very young children inhabit from microenvironments (chapter two), primary objects (chapter three), toys (chapter four), television (chapter five) and interactive media (chapter six). This ordering presents a chronological continuum from early objects to more sophisticated mediating technologies. In each chapter, I will consider the ways in which these particular aspects of infants' and children's socio-equipmental environments may act in concert with children's developing corporeality to shape their experiences of the world.

In Chapter Two, *Being in Facilitating Microenvironments* I will argue that the cluster of specific, yet interconnected environments that we inhabit, 'from the womb to the tomb', shape the way the world may be for us, imposing points of

view, delimiting our gestures, orientation and ability to traverse space in ways which are specific to the technology itself in concert with our own corporeality. Winnicott's concept of the holding phase in infant development will be used to reinforce notions of ontological security and the importance of this phase of infant development to the adult life that follows it (Winnicott 1988). I will, in this chapter, relate these theories to environments of baby carriers, cots, playpens, highchairs and mobile 'container technologies' (Sofia 2000) like baby capsules and strollers to suggest that even these very basic technologies constrain and enable particular actions, understandings and experiences of space in relation to children's developing corporeality.

Chapter Three will initially consider infants' earliest experiences of the world and others within it through the lens of phenomenologically informed psychoanalysis. I will argue, in line with both Merleau-Ponty and Winnicott, that very young children do not understand themselves as discrete beings *apart from* the world and the others within it, but rather as *a part of* them, and that maturation from infant to toddler and then young child, older child and adult is an ongoing process of simultaneous dis-integration and integration. This process allows us to ultimately come to see ourselves as separate from, but connected to, our particular socio-cultural environments, including the other people within it. I will suggest that infants' primary relations with the world and its elements are inclinations facilitated by the gradually widening space between infant and carer, as babies move from total dependence to relative independence. In this chapter I will primarily consider the changing relationship that infants have with the maternal body and then move on to feeding technologies, dummies and clothing. Each of these objects figures largely in children's material worlds, and their growing understanding of themselves as distinct beings within them.

Chapter Four *Toys Are Us: Playing is Being*, will draw on Merleau-Ponty's premise that as we repeatedly use instruments, in this case toys, they become incorporated into the dynamic organization of our bodies. This premise sets the scene for debunking the notion that media or indeed mediating technologies exist 'out there' delivering causal effects upon children. Recognizing that those things we use on a regular basis become part of our embodied agency, adds a new

dimension to our previously held notions of the relationship between children and technologies. This chapter too, will depart somewhat from the previous chapters in that it will explore more of the socio-historical context in which toys are made and marketed to adults and children. It will also problematize the concept of texture as it relates to transitional objects in Winnicott's account, but will suggest that increased plasticization, mass production and transmediation of toys complexifies an already complex phenomenon, mediating infants and toddlers experiences of the world in culturally and historically specific ways.

In Chapter Five, *The Ontological Significance of Television in the Lives of Infants and Toddlers* I will discuss screen based media within very young children's lifeworlds. I will suggest that screens potentially call and hold our attention, ultimately creating an expectation of relevance. This is not innate, but rather a learned cultural way of being-with-screens, which stems from our earliest orientating responses which through repetition become body habits of attention and distraction. Furthermore in relation to attracting and holding, I will analogise Winnicott's holding phase in infant development with that of screen technologies, to argue that television screens serve to both hold infants and toddlers *and* to aid their transition from dependence to relative independence. That is, they are both facilitating microenvironments and transitional objects.

In *Infants, Toddlers and Peripatetic Screens* I will consider new ways of being in the world facilitated by interactive media, mobile screen technologies such as DVD players in cars, mobile phones and the internet. Again, the concepts of facilitating microenvironments, the holding phase and in-habitation will be used, bringing us full circle to revisit microenvironments and transitional objects.

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This introduction has critiqued current modes of enquiry into children and the media and argued that by focusing on the central concepts from phenomenology, post-phenomenology and psychoanalysis we may come to a more comprehensive grasp of how any media may intervene into our experiences and understandings in and of the world. In the upcoming chapters, these concepts will be developed and

applied to a range of technologies to argue that very young children's relationship with media is primary and embodied and part of a spectrum of mediating technologies in infants' and toddlers' cultural and corporeal situatedness.

Regardless of years of research, and numerous perspectives, very little remains known about what, if any, impact media have on children up to the age of three. There are a number of difficulties involved in studying this very young age group, not the least of which is a persistent tendency to focus on media content, which may or may not be understood by such young children. This introduction has outlined the thesis' alternative approach which recognizes that our primary relationship with media stems from our embodied being in the world in relation to other material objects. In order to further develop this approach, I will argue that we need to consider both media and mediating technologies together since they are both embroiled in the process of mediating and relations of mediation. Considering mediating technologies from clothing, holding spaces, and toys, to 'high' technologies, allows us to come to an understanding of how we move along a continuum in the process of maturation in relation to things that are like us and those that are not.

Very young children's relationships to the world are unique and specific to their corporeality. The specificities of their embodiment are such that they do not experience the world as adults, or even older children do, but rather as a field of sensory-affective possibilities (Merleau-Ponty 1964b). While adults also experience the world on this sensory-motor-affective plane, this level of experience is overlain with layers of culturally and historically specific parameters of engagement, which reconfigure our relations with the world in the process of maturation and socialisation. I argue that very young children's developing bodily motility, control over their bodily movements and limited experience in the world render them a special case for study in that they experience the world on the sensori-motor-affective level as a primary way of being. Moreover, while we all experience the world in this way, the cognitive and cultural layering we experience as adults often obscures our foundational corporeality. As such, studying the ways in which infants' and toddlers'



experiences of the world are mediated through objects may provide greater insights into our own intercorporeal relationships with our socio-equipmental environments.



## *Chapter 1*

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# *Being in a Material World: Towards a Post-Phenomenology of Very Young Children and Media*



## ***Being in a Material World: Towards a Post-Phenomenology of Young Children and the Media***

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In this chapter I will outline a theoretical framework for studying very young children and the media which does not rely on content as a primary mode of analysis. As suggested in the introduction, it is useful to frame this investigation in terms of the ways in which meaning-making is bound up in body-technology relations. This is not one that defends *either* the passive receptor *or* the active reader of media messages but one that insists instead that agency, or activity in the world, is mediated through our engagement with technologies. That is, certain types of actions within the world are enabled while others are constrained precisely due to our corporeal and affective inclinations towards the world and its contingent technological forms. The theoretical framework developed here does not prioritise the content of media, rather it considers the distinctive ways that infants and toddlers interact with mediating technologies at the level of their primary embodiment, and in relation to their socio-equipmental environments.

The premise upon which this approach rests is a phenomenological one—that is, infants, toddlers, children, youth and adults alike—incorporate media, technologies, and objects into our corporeal schemas, such that they are integrated into our habitual ways of being and acting in the world. Even the simplest technologies mediate our existence and may consequently be considered mediating technologies insofar as they enter into the rhythms and practices of everyday life, changing our experiences of the world and its inhabitants. For instance, when very young children are placed in a walker and learn how to propel themselves about, the baby and walker may be considered a technologically enabled pedestrian complex. That is, the walker acts as an aspect of the child's body which simultaneously enhances babies' capacity to move by the inclusion of wheels *and* constrains their his or her limits of approach by a wide base and a wide tray which places a material barrier between the child and the rest of the world. The properties of this type of mediating technology act in relation to infants' inclinations and corporeal maturity to constitute a human-technology relation that defines what is doable within the environment.

Moreover as walkers are the products of Western manufacturing, their incorporation into the rhythms of everyday life in Western societies has only happened within the last fifty years. Their use is not only contingent upon having even surfaces which will support them, but also the space to allow them to move about adequately. Subsequent to 9000 American and 3000 British children being injured by falls, the American Academy of Pediatrics issued a report calling for brakes or a ban on walkers (Rogers 2001, 43) identifying them as objects of corporeal risk. As will be discussed in the next chapter, parents also make decisions about whether or not to use walkers on the bases of personal beliefs and attitudes about this risk, and whether such a technology is appropriate for their child's socio-equipmental environment.

Merleau-Ponty's phenomenology of embodiment will be elaborated upon to reinforce the notion that we are all embodied beings involved within the world which is also involved with us. The phenomenological concepts of being-in-the-world, embodied agency, fresh instruments, intercorporeality, reversibility, perception, corporeal schema, flesh of the world and *écart* will be explored at length. Subsequently I will move on to a brief examination of body knowledge or 'knowledge in the hands'. This will be done to suggest that those things with which we habitually engage become incorporated into our bodies enabling us to interact with the world *with* and *through* devices. Ihde's post-phenomenology of technology will complement Merleau-Ponty's phenomenology of embodiment to account for the historical and cultural specificity of that incorporation. The study of material culture as well as Gibson's concept of affordances will be introduced to outline the specificities of infants' and toddlers' embodiment, and how this alters the particular possibilities that technologies offer to children who are literally just coming to grips with, or finding their feet in the world. To further complement this interdisciplinary approach, the inclusion of Winnicott's psychoanalysis will permit us to consider the notion that being is a continuous and cumulative state. Winnicott's account of babies' transition from total dependence to relative independence also informs our understanding of the importance of environmental provisions, holding spaces and the gradual widening of space between carer and child in children's transition to object relations and their

consequent emerging understanding of themselves as discrete beings. This leads us to a consideration of the concepts of reversibility, chiasmic intertwining, flesh-of-the-world and *écart* to emphasise how Merleau-Ponty's phenomenology and Winnicott's psychoanalysis may be combined to offer a complex and comprehensive interpretation of the ways in which infants and toddlers experience the world in relation to the materiality of their environments. In the following pages I will initially provide an overview of Merleau-Ponty's phenomenological concepts of perception, being-in-the-world, body habit and incorporation to gradually introduce us to the conceptual framework which will be developed throughout this thesis.

Phenomenology is a philosophy which 'does not expect to arrive at an understanding of man (sic) and the world from any starting point other than that of their "facticity"' (Merleau-Ponty 1962, vii). Phenomenology, thus, is a philosophy that recognises the world as, self-evidently, 'always "already there," *before recollection begins*' as an '*indisputable precondition of our knowledge of it*' (Merleau-Ponty 1962, vii my emphasis). Hence phenomenology does not resort to cognition as the origin of knowing. Rather it recognises the centrality of embodiment which is subsequently overlain with concepts and language.

### ***Merleau-Ponty's Phenomenology of Embodiment and Being-In-The-World***

A central premise on which this thesis rests is the centrality of very young children's embodiment 'as a condition of knowledge, experience and perception' against the notion of a potentially disembodied knowledge (Richardson and Harper 2002). Therefore, I argue for a phenomenologically influenced model of knowledge which understands very young children as essentially embodied beings-in-the-world, who experience the world *through* their bodies in relation to mediating technologies, which enhance and constrain agency in medium specific ways. This argument will be elaborated as I progress through this thesis.

The work of French phenomenologist, Merleau-Ponty, offers us an opportunity to restore issues of embodiment in relation to media effects (1962). His phenomenology reminds us of three essential aspects of existence which can aid

our understanding of the ways in which technologies mediate very young children's existence. In the first instance, we are inescapably in a world that is non-indifferent to and for us (Taylor, 1990). Secondly, we are in this world which constitutes a field of meanings as an agent who acts in meaningful ways, and thirdly, our perception is necessarily the foundation of our experience of meaning and the world (Taylor 1990).

Merleau-Ponty speaks to the significance of studying child psychology as a means to accessing a greater understanding, not only of individual, but also 'intersubjective existence' (Merleau-Ponty 1964b, 96n). He argues that as we mature into adulthood we do not move 'from one ontological order to another' but rather develop continuously throughout life, and as such, that early childhood experiences are 'in some respects decisive, for the character of adult life that follows it' (96n). Moreover, he reminds us that relying on cognition is an inadequate model of knowledge, suggesting that:

ordinary experience shows that, in imitating others, in learning to walk, in becoming familiar with an environment, what occurs cannot be explained by the notion that there is first an intellectual act of 'knowing' rules, maps, or words and then a move to use them. Intellectualism of this kind is, therefore, an unsatisfactory alternative to naturalism in explaining the nature of childhood existence as well as its influence on adult life (Merleau-Ponty 1964b, 96n)

In what follows I will examine Merleau-Ponty's phenomenology in more depth to reinforce the notion that only by centralising embodiment as a precondition of knowledge can we arrive at a more comprehensive understanding of how infants and toddlers develop in relation to media and mediating technologies. This will initially be done through the lens of the inescapability of our being-in-the-world and the primacy of sense perception as our foundational way of knowing the world. At the outset, however, it is important to further explore the implications of the foregoing quote and discuss in more detail what distinguishes Merleau-Ponty's phenomenology from the type of 'intellectualism' from which he differentiates his own position.

As Merleau-Ponty asserts, to be is necessarily to be as a body—we cannot *be* except as bodies (Merleau-Ponty 1962). As bodies we are also undeniably bodies



in-the-world. We experience the world that enfolds us, as and through, our embodied being-in-the-world. Our embodied being-in-the-world is our opening onto the world: a point of view of reality; it is our way of having a world that is, not a conclusion we arrive at but the ‘basic pre-understanding without which we would not perceive’ (Taylor 1990, 12). Perception situates each of us within the world, not only establishing from where we may view the world, our particular point of view, but also the constitutive and structural role of that point of view in epistemic and all other activity. Therefore, being-in-the-world is how things are for each of us, from where we stand as embodied sensorial beings, who may act in and on the world, and upon whom the world may act. The perceptual field, which has an orientational structure that establishes fundamental spatiality and topology such as foreground, background, up, down, and near and far, is our opening onto the world. Thus embodied perception establishes not only where we are within the world but also our possibilities for movement and action within it. Unlike the intellectualism or cognitivism which distances itself from the world in order to observe, categorise, order, measure and explain it, phenomenology seeks to return to the things of which conceptual knowledge speaks—those things which inform the basis of cognition and language.

Merleau-Ponty recognises the primary relation that exists between the observing, experiencing subject, and the observed, experienced object. His phenomenology thus insists that we are all ‘body-subjects’ who are inextricably and undeniably involved with the world and that this involvement, informs our understandings of and action within the world (Merleau-Ponty 1962, 90). As Richardson and Harper (2002) point out:

The body is not simply a material location from which we perceive, a distanced object; we experience things *through* our bodies not in a separate relationship to it. By positioning *perception as a fundamental corporeal reality*, rather than the result of the action of a disembodied thinking mind, Merleau-Ponty consolidates corporeality as an essential (and not simply necessary) condition for the production of knowledge (Richardson and Harper 2002).

Infants’ and toddlers’ bodies, like all bodies are the membranes, or ‘transparent medium[s]’ that enable the flow of perception, meaning and action, from the

world to the individual and back again in a continuous kinaesthetic feedback loop that ceases only with our death (Merleau-Ponty 1962 cited in Ihde and Silverman 1985, 26). Perception, moreover, is not something we consciously do but is something that we cannot help but do as embodied beings-in-the-world.

As perception is an action with which we are inescapably involved, Merleau-Ponty's phenomenology is that of embodied agency. As Taylor tells us:

If one had to sum up Merleau-Ponty's philosophical legacy in a phrase one might say that he more than any other taught us what it means to understand ourselves as embodied agents (Taylor 1990, 1).

To be, is thus to be primarily an embodied perceiving subject, or body-subject, who can only perceive in the ways it does because of the type of body it has (Merleau-Ponty 1964, 101). Very young children, like all of us, inhabit the world within our own particular bodily space, with a 'point of view' arrived at from 'the double horizon of external and bodily space'—the intermingling of what is perceived as external, in relation to the particularities of our embodiment—and a perceptual field constituting and constituted by our ability to act within the world (101). Moreover, as Sarah Ahmed (2010) points out:

To be more or less open to new things is to be more or less open to the incorporation of things into our near sphere... Those things we do not like we move away from. Awayness might help establish the edges of our horizon; in rejecting the proximity of certain objects, we define the places that we know we do not wish to go, the things we do not wish to have, touch, taste, hear, feel, see, those things we do not want to keep within reach (Ahmed 2010, 32)

Ahmed's assertion is particularly salient in relation to infants and toddlers whose immature embodiment, their emplacement, and what is provided to and for them in the process of socialisation, delimits what they can and cannot experience, what they can and cannot be near or away from, partially determining their 'place' in the world and in relation to others within the world.

The delineation between the object of perception and action, and the perceiving subject is complexly problematized in Merleau-Ponty's reversibility thesis. Our acts of perception cannot be considered as a unilateral 'appropriation' of the

world. In ‘taking in’ the world, I do so from where I am located, what I can and cannot perceive, my ability to move closer to or further from what I perceive, and this synthesises with past experiences to inform current and future action. As such there is a reversibility or circularity to perception, rather than one side taking from the other. Perception is a sensory-motor-affective interaction: the world and the things and people in it, touch us as we touch them. As bodily agents, not only do we act on things, but they also act on us. As such infants and toddlers no less than adults are mutually involved or intervolved, with the world and its inhabitants. As Ihde comments, ‘our whole-body perceptions are sensorily synthesized in our interactions with a “world”’ (Ihde 2002, 38).

This reversibility thesis may be better understood by considering Merleau-Ponty’s concept of flesh, which is not necessarily bodily flesh, but ‘flesh of the world’, enabling us to grasp that:

Everything depends, that is, upon the fact that our glances are not “acts of consciousness,” each of which claims an invariable priority, but openings of our flesh which are immediately filled by the universal flesh of the world. All depends, in short, upon the fact that it is the lot of living bodies to close upon the world and become seeing, touching bodies which (since we could not possibly touch or see without being capable of touching or seeing ourselves) are *a fortiori* perceptible to themselves. (Merleau-Ponty 1964, 16)

Just as we are inextricably engaged in perception, we are simultaneously and undeniably able to be perceived. The mutuality of our engagement with the world allows us to understand that we are fundamentally the same, and different from, those things that we perceive and that perceive us. This primal intersubjectivity enables us to grasp our ‘fundamentally ambiguous identity-encompassing-difference’ (Dillon 1990a, 81). Babies learn very early on, for instance, that they are different from, but like the other people and things that they perceive and that perceive them. This manifests through repetitive action and reaction, for example when crying elicits feeding or changing. The concept of reversibility appreciates that the observing eye or touching hand is an integral part of the world it perceives and not something that stands apart from it: ‘it must obey the same laws of motility, and adjust its own “I can” to the demands of the vision it interrogates’ (Dillon, 1990: 83). The notion that we are all body-subjects who inhabit the world

within perceptual space which is constituted by and constitutes our ability to act may now be extended to suggest that the perceiving acting subject is also perceived by and acted upon by the world. This may be illustrated in the case of baby feeding bottles. We may initially consider that babies act upon bottles, drinking from them, looking around or through them and feeling them, but we must also appreciate that the bottle has a material and textural agency, acting upon the baby, touching him or her, filling the child with its textures, tastes and smells, sating his or her hunger and informing the child's perspective on the feeding experience. Reversibility then is the simultaneity of perceiving and being perceived; a process that allows intersubjective relationships between humans—intercorporeality. Intercorporeality and primal intersubjectivity are terms which Merleau-Ponty uses interchangeably to indicate the fundamental relatedness between beings-in-the-world.

By introducing the concepts of flesh and reversibility, Merleau-Ponty suggests that the world itself has a kind of embodiment and agency. Our '*openness to*' the spatially non-coincident flesh of the world is precisely that which allows us to incorporate technologies and equipment into our own bodily organisation through repeated perception. It follows then that reversibility may describe the relationships between humans and nonhumans; and between non humans and non-humans, all of which are enabled in *écart*, which translates as a gap or distance. As the space between carer and baby widens, as it must, in the move from total dependence to independence, the baby's perceptual horizons are broadened to allow other 'flesh' to enter. Gail Weiss (1999) offers a useful explanation of the term as a space of non-coincidence that is articulated through action towards and away from other people and things within the world which resonates with Ahmed's position referred to earlier (Ahmed 2010). In using a baby walker for example, infants are able to enjoy mobility which is enabled by the baby-walker combination. The walker alone cannot accomplish mobility without the baby or some other action, and very young babies are unable to move with such speed without the walker. It all relies on a mutuality enabled by the space which designates each as a separate entity, as they come together to achieve a particular action—that of semi-autonomous propulsion. The space of non-

coincidence or the spread of *écart* is a necessary prerequisite to the formation of self-other distinctions and is a concept that I will return to shortly. Through this spread, the flesh of the world enters and ultimately allows us as infants to become aware of ourselves as discrete entities who exist more or less independently from other entities which are ‘like me but over there’ (Dillon 1990b, 89).

As Taylor suggests, ‘there is a basic and inescapable articulation of perception, which is our awareness of things through our capacities to move among them and affect/manipulate them’ (Taylor 1990, 9). Given the non-coincidence of bodies in space, individuals construct specific understandings of the world from where they stand through their potential for agency within that world. Furthermore, this specific point of view is not a fixed once-and-for-all position, but a dynamic process of becoming. This is so particularly in the context of childhood, where it is commonly understood that infants and toddlers are in the process of becoming older children, youth or adults, yet is often overlooked where adults, who are also always becoming, are concerned. With the passage of time and increased control over their own mobility and motility within it, the world is an agentic environment that changes in relation to the child’s own flexible corporeality. As Martin-Dillon notes:

The fact is that the infant cannot live its mother’s flesh. At least since parturition, the infant is a discrete body and lives its separateness. Its mouth recognizes the transcendence of Mother right from the start (Dillon 1990b, 89).

The fundamentals of this self-other difference is arguably settled in a child’s world by six months of age, and the significance of the non-coincident Other comes to operate at the pre-reflective level as a continuum of ‘like-me-but-not-like-me’ (Dillon 1990b, 89). This continuum will, with the passage of time, develop to encompass the full range of experience, accounting for the identification of similitude and divergence in others, including non-human others, who are similarly in the world but ‘over there’ (89). Only from a position which argues for cognition devoid of experience, is it possible to suggest that the lack of *conscious* differentiation, such as that attributed to infants, equates to lack of differentiation altogether (89).

Our ability to act in and on the world, as well as our openness to be acted on within the world, is limited in some ways and amplified in others by the incorporation of tools and objects into our corporeal schemas. The corporeal schema is another of Merleau-Ponty's concepts which, as Weiss (1999) explains, is 'the dynamic organization of [our] bodies which renders [us] capable of performing physical tasks, an organization which unfolds in the absence of conscious intervention' (Weiss 1999, 2). Through repetitive use, tools and technologies effectively become aspects of our corporeal schema in culturally and medium specific ways (Weiss 1999, 2). This is noticeable in the example of 'jumpers' which are designed to hang from door frames which are clearly of no use unless a door frame exists from which to hang them. Consequently, through the notion of reversibility and its concomitant concept of flesh of the world, Merleau-Ponty situates equipment and technology in a primary relation to the body and as an aspect of embodiment.

This is crucial to the investigation of children and their use of mediating technologies. The corporeal schema specific to very young children is one in which their capability to perform physical tasks is limited by their developing mastery of their own bodily movements. The flexibility, control and dynamic embodiment demanded by technologies is a key element in any account of children's experiences of technologies. Weiss suggests:

In order for human beings to "interface" with machines, in order for us to become one with our familiar, mass produced or even "one-of-a-kind" prostheses (e.g. glasses, clothes, artificial limbs, moussed-up hair, cars, watches, etc.), there must be, as Deleuze affirms, a strange space of disincorporation that makes incorporation possible (Weiss 1999, 120).

The space of disincorporation, in the foregoing quote refers to the previously mentioned *écart*, or space of non-coincidence which is necessary for objects to be incorporated into our corporeal schemas. Those actions in which we habitually engage entail incorporation of instruments into oneself, such that they 'play a part in the originary structure of [one's] own body' (Merleau-Ponty 1962, 91). The body 'understands', that is, experiences harmony between intention and performance in the cultivation of such habits; the manipulation of instruments, equipment, tools and technologies is learned 'when the body has understood it,

that is, when it has incorporated it into its 'world', and to move one's body is to aim at things through it' (Merleau-Ponty 1964, 139). For example baby walkers become a part of pre-ambulatory children's capacity for mobility in the world. Through habitual use, even very young children's bodies learn that by adjusting their orientations, postures and gestures, they can move from one place to another, allowing them with increasing confidence to aim at the world through the walker. In doing so, the walker becomes gradually incorporated into the child's corporeal schema which extends and limits his or her possibilities for action in the larger environment of say, the lounge room. As such, the walker functions as an exosomatic corporeal device.

It is important to also note that bodies learn these actions; they are *not* the reflex actions of an objective body, like recoiling our hand from heat or danger, *nor* are they actions which require conscious thought and/or planning; rather they are the realisation of action towards the flesh of the world which is enabled by the non-coincidence of the technologies and our own body. This constitutes a 'knowledge in the hands' (a euphemism for body knowledge), which is forthcoming only when bodily effort is made, and cannot be formulated in detachment from that effort (Merleau-Ponty 1962, 144). That is, our body and its instruments combine to act as the medium through which intention becomes action. In manipulating the walker, an infant experiences, 'at every stage of the movement the fulfilment of an intention, that is, as a stage in one's perpetual movement towards a world' (Merleau-Ponty 1962, 144-5). It is this perpetual movement towards the world, or opening onto the world, that has led phenomenologists to suggest that embodied agents are essentially *être-au-monde*, which literally translates to being-in-the-world.

The techno-body is the body we *are* in contemporary Western society. It is the body from and through which we perceive, act in, and which is acted upon within the world. So, to attribute either utopian or dystopian causality to technologies in relation to children's agency rests on the naïve premise that children are not active participants in the world but '*tabulae rasae* to be inscribed by culture' (Hodge and Kress 1988: 240). Yet, the perceiving, acting body *is* knowledge, and perception is the fundamental corporeal reality from which all subsequent

knowledge emerges. Furthermore, this fundamental corporeal reality structures and is structured within the world as a field of meaning and potential agency. For infants and toddlers therefore, we may conclude that the an emergent consciousness of themselves as distinct beings is a complex combination of fields of meaning and potential action, which not only structures and is structured by perception, but that this happens in relation to young children's developing corporeality, and is enabled and constrained by the environment and mediating technologies within it.

### ***Ihde's Post-phenomenology***

Merleau-Pontian phenomenology on its own, however, does not *explicitly* venture into the historical or cultural specificities of our lived experiences. Yet as beings-in-the-world we necessarily exist in a particular time and place and the media spaces which facilitate our existence and constitute a perceptual field of potential meaning and agency are unavoidably culturally and historically embedded. Ihde's post-phenomenology allows us to take greater account of how infants' and toddlers' embodied relations with technologies structure and are structured in particular 'lifeworlds' (Ihde 1990). In using the term 'lifeworld' Ihde acknowledges that embodiment exists in a cultural context and understanding it requires that we consider both sensory perception and 'a cultural hermeneutics that situates our existential life' (Ihde 1990, 29-30). Acknowledging that bodies are not only existential bodies but are also culturally and historically constructed, Ihde notes that the technological ensembles we surround ourselves with, make up what Merleau-Ponty refers to as the worldiness of our world, or the facticity of our particular lifeworld. Furthermore, Ihde's definition of technology, coupled with the assertion that technologies mediate our existence and experiences within the world, as well as the impossibility of a technology free existence, allows us to consider media much more broadly as a subset of mediating technologies (Ihde 1990).

If we consider the example of a pram, we may concede that a child-pusher-pram complex only exists in certain cultures and environments. In order for such a complex to operate as it is intended, it requires a relatively flat and smooth



surface. Where these are not available, prams will be of little use. Where children primarily occupy spaces which are dirt, grass or other uneven surfaces, strollers may be superfluous. Thus, how we may experience the world cannot be considered a matter of individual choice, as the idealists would have us believe, nor is it imposed upon the powerless by the powerful, but is how the world as it presents in a particular time and place with attendant technologies, values and beliefs: it is always-already a part of cultural practices specific to our being-in-the-world. By virtue of habitual engagement with the tools and technologies as part of the flesh of the world, they are incorporated into our own becoming-in-time. Consequently, as Weiss points out that:

the techno-body... is...not a future body, but is our own bodies and bodily possibilities to the extent that they are discursively represented, psychologically constructed, and physiologically re-constructed through technological processes (Weiss, 1999: 106)

A post-phenomenology, or phenomenology of technology, asserts that every experience is an experience of something and that we do not experience any material element of our world except in relation to us, or in terms of what it offers to us (Ihde 1990). As such Ihde offers us a multifaceted account of human-technology relations which exist along a continuum from embodiment relations to alterity relations (Ihde 1990, 101). Embodied relations are those where we use objects to encounter and manipulate things, for example eye glasses or a baby walker in a relation that may be diagrammatically represented as ‘(Human-technology)  $\rightarrow$  World’ (107). Hermeneutic relations involve a ‘reading off’ enabled by technology, as in the case with thermometers, x-rays and in some instances television, all of which require a technologically facilitated interpretive effort, which may be represented as ‘Human  $\rightarrow$  (technology-World)’ (107). In alterity relations, we experience technological artefacts as ‘others’ which possess a kind of independence as in the case, of computers and technologically enabled toys that speak, or in any other way display characteristics of liveness, represented as ‘Human  $\rightarrow$  technology-(-World)’ (107). Ihde points out that this type of human-technology relation situates the technology concerned as ‘quasi-other, or technology “as” other *to* which I relate’ (107). The three relations mentioned thus far are all foreground relations but we also experience technologies as background

relations; as the context for living which Ihde points out exist at the limit of embodiment relations (107-108). Such things include clothing, air conditioning and houses. Hence Ihde tells us that there is no one way to conceive of technology, but rather a number of ways in which we experience technologies and that our experience of technologies amplify or magnify *and* reduce or limit our experiences of the world, mediating how we understand our particular lifeworlds. In the case of the walker, for example, the technology amplifies babies' experiences of relatively autonomous mobility but reduces her or his capacity to get close to things or to traverse unsuitable surfaces.

Ihde, however, was not the first to consider the mediating capacity of a wide range of technologies, nor the link between bodies and technologies.

Notwithstanding the prominence of content based media analysis, the term 'media', even in media studies, has more than one meaning. As O'Sullivan et.al. point out, while the term is sometimes considered as a means of communication:

often it refers to the technical forms by which these means are actualized (for example, radio, television, newspapers, books, photographs, films and records). McLuhan used the word in this sense in his famous dictum *The Medium is the Message*. By this he meant that the personal and social consequences of a new technological medium in itself are more significant than the uses to which it is actually put: the existence of television is more significant than the content of its programmes. (O'Sullivan et al. 1994, 176)

McLuhan's stance argues that any technological medium is more significant than its content, in terms of the way it augments and constrains sensory experience. Having distanced himself from a preoccupation with content as it is generally understood, McLuhan extended his definition to include such things as, the spoken and/or written word, clothing, money, cars, games, houses, maps and weapons, to name but a few. In doing so, McLuhan has opened a space to consider objects within material culture as mediating technologies, with medium specific characteristics in the context of the particularities of time and space. This insight allows us to consider an array of material objects as mediating technologies within the socio-equipmental environments of infants and toddlers.

## *Mediating Technologies and Material Culture*

The study of material culture is a growing interdisciplinary field which starts out from the premise that we cannot fully understand our social existence without understanding the materiality of our culture (Tilley 2006, 1). The field is primarily concerned with:

The manner in which people think through themselves, and their lives and identities through the medium of different kinds of things...subjects and objects are indelibly linked. Through considering one, we find the other. (Tilley 2006, 9)

Hence, as Tilley points out, in studying the ‘things’ with which we co-exist, we gain insights into cultural praxes, what they mean in a cultural context and how technologies mediate our being-in-the-world. All material objects may function on several planes of meaning (Calvert 1998, 69). For instance, Calvert proposes at least three planes of meaning, the technomic, the ideotechnic and the sociotechnic. The technomic is the practical or use meaning of an object or what it can do. The ideotechnic plane says something about the beliefs, values and tastes of the owner or user, and on the sociotechnic plane, objects express cultural values and beliefs (Calvert 1998, 69). Objects are material-discursive relations. As such we can see that material objects are not neutral but are rather discursively embedded and reproduce cultural norms and identities within cultures. Lally implicitly acknowledges the technomic, sociotechnic and ideotechnic functions of technology in her investigation of the significance of computers in domestic environments (Lally 2002). Citing Robert Romanyshyn, Lally comments that:

... things are perhaps the most faithful witness of all, and in their fidelity to us they function as extensions of ourselves, reflections and echoes of who we are, were, and will become. Those things in your room, for example, those simple, ordinary things mirror who and what you are, and situated in that room they give a shape to its space, they form it into a place, they outline a world...Staying in their place, they give us our place, and without such things in our lives we would have no place at all. (Romanyshyn 1989, 193-4 cited in Lally 2002, 1).

The objects with which we surround ourselves enable us to be ‘at home in our everyday environments’ (2). They are our way of making what are ostensibly houses into homes; turning them into places where we can feel comfortable and

secure (2). Lally further agrees with Calvert by stating that we increasingly negotiate and mediate social relationships and cultural forms through the incorporation of the objects in domestic environments into our own understandings of where we stand within the world (2). As such, these object environments create 'media spaces' constraining and enabling possibilities within them. They mediate infants' lived experiences within the world. For instance, baby monitors amplify babies' capacity to summon care from another room, mediating the space between carer and child, and enabling carer supervision while constraining child-free time and space. As such they function on the technomic plane, but they also function on the ideotechnic and sociotechnic planes as well. On the ideotechnic plane, the use of a baby monitor is indicative of carers' values and the importance they place on being available to their children. On the sociotechnic plane the baby monitors speak to the cultural value attached to very young children as well as a particular socio-economic status which supports its purchase.

Constellations of artefacts 'help uncover the nature of the everyday lives of children and the assumptions and concerns foremost in parents' minds at any one point in history' (Calvert 1998, 68-69). Calvert notes for example that the 'rejection and re-creation of everyday artefacts of childrearing' that occurred from 1750-1850 'indicated a profound change in society's perception of the nature of childhood and in attitudes toward children' (70). Prior to the mid eighteenth century such childrearing artefacts as did exist were designed specifically to integrate children into adult society as 'upright' human beings as soon as possible (71). By the mid nineteenth century, fears about the animism and unruliness of children had abated and a new set of artefacts emerged: 'the crib, high chair, swing, and perambulator all served as barriers between the child and the adult world' (71). The rationale was to contain children who had not yet learned to curb their 'unruly behaviour'. Hence a whole range of artefacts were created to facilitate this separation, rather than trying to 'force' children to adopt uprightness with the aid of previously existing artefacts (70-71). As such, material culture is an important indicator of our understandings, not only of the social construction of infants and toddlers, but also of the ways in which very young children's

bodies may engage in particular socio-cultural contexts by configuring embodiment and posture within containment.

Particularly within the context of this thesis, our constructions of childhood are important, not only because they shape our understanding of what is at stake in the debates surrounding this or that effect of media, but also because our understandings of what a child is, informs our treatment, expectations and fears for children (Calvert 1998). Yet, despite this being an important consideration *vis a vis* the mediating potential of material culture, if we focus too sharply on the politics surrounding adult conceptions of childhood, there is a danger that children's agency may be left completely out of the picture. We need to understand not only the symbolic meanings of material culture, but also children's experiences of objects and the ontological and perceptual implications this offers, which is why the concept of affordances is useful.

The term 'affordance' is used in different ways by two major theorists to inform its use. While each recognizes that affordances are a relation between an object and an organism Norman's conception has been adopted primarily in relation to design and usability. For Norman:

Affordances provide strong clues to the operations of things...Knobs are for turning. Slots are for inserting things into. Balls are for throwing or bouncing. When affordances are taken advantage of, the user knows what to do just by looking: no picture, label, or instruction is required. Complex things may require explanation, but simple things should not. When simple things need pictures, labels, or instructions, the design has failed. (Norman 1990, 9)

Affordance, for Norman therefore relates to design and usability in so far as particular objects are designed to enhance a preferred use. His understanding is thus useful in that it allows us to think about intended and unintended use, which is important in the context of very young children who frequently defy intention. Moreover, it facilitates an understanding of how things are designed for infants and toddlers within cultural frameworks of childhood.

Gibson, on the other hand, offers an ecological approach which tells us that '[t]he *affordances* of the environment are what it *offers* the animal, what it *provides* or *furnishes*...It implies the complementarity of the animal and the environment'

(Gibson 1986, 127). As such, he conceives of affordances as ‘relation[s] between an organism and an object with the object perceived in relation to the needs of the organism’ (Hammond 2009, 205). In doing so, he recognizes that any organism’s existence is at least partially dependent upon environmental provisions and, that organisms act and react in their environment, not only to what is in the environment but also in relation to the possibilities, opportunities and threats that the environment presents (Sanders 1993, 288). This conception of affordances is more closely aligned to a phenomenological perspective, in that affordances vary for different bodies in relation to their own corporeal capacities and as such must ‘be measured *in relation to the animal*’ (Gibson 1986), 127). Sanders elaborates on this understanding of affordances and underlines the usefulness of the concept to this thesis, in considering the particularity of the affordance relation between any object and very young children. He confirms that:

What affords sitting down for an adult may not afford the same thing for a very young child.

What aspects of an organism’s environment offer which affordances is thus very much a function of the organism’s needs, abilities, and general characteristics. Indeed, it is likely to change during the course of the organism’s life, as the organism undergoes developmental change. (Sanders 1993, 291)

Hence, both the organism and the environment can be considered to have agency and exist in a dynamic relation. As Sanders suggests ‘what an environment *is* is a function of the characteristics of the organism; what the environment “provides” in the way of “stimulus” is a function in part, of the organism’s activity’ (Sanders 1993, 288). As such Gibson’s concept of affordances speaks to our imbrications with our material environments and resonates with Merleau-Ponty’s notion of flesh of the world. Both Merleau-Ponty and Gibson understand that embodiment is always embodiment in relation to environmental contexts and objects.

Consequently while Norman’s affordances speak to the intentionality of design, Gibson allows us to look at the ontological relation between infants, toddlers and the things in their environment. For example, a spoon which is intended as an eating utensil, to an infant is sometimes an eating utensil, sometimes a percussion instrument, sometimes a hairdressing item and sometimes merely an object of

curiosity. Gibson's account, therefore, furthers the contention that the incorporation of tools into our corporeal schema is a relation that is mutual and dynamic and allows for corporeal development and maturity.

### ***Winnicott's Psychoanalysis***

The maturation process is central to Winnicott's psychoanalytic theory, and also situates child psychology in relation to phenomenology, material culture and affordances, particularly through the concepts of the facilitating environment, potential space and transitional objects (Winnicott 1972). Winnicott's concept of the facilitating environment as a safe holding space necessary for existence and maturation reinforces the complementarity of organism and environment and the inescapability of our being-in-the-world. Like the concept of affordances, Winnicott's psychoanalysis and Merleau-Ponty's phenomenology allow us to consider infants and toddlers *in relation to* the materiality of their socio-equipmental environments. The technological texturing of very young children's lived existence is further enabled through Winnicott's notion of transitional objects which enter into potential space, facilitating separation and exploration, the texture of which contributes to children's understanding of how a secure world feels. Therefore, Winnicott offers us an understanding of the role that material objects play in the transition from total independence to relative independence.

Despite their different foci, psychoanalysis and phenomenology have significant points of intersection, and Merleau-Ponty acknowledges the important contribution that psychoanalysis has made to our understanding of the importance of early childhood experience (Merleau-Ponty 1964b, 96n). Crucially, Merleau-Ponty notes that Freud's contribution to our understanding of the continuity of being forces us to acknowledge that, infancy and adulthood are not disjointed or separate states of being but rather points along a continuum of existence. For the same reason, post-Freudian psychoanalyst Winnicott argues that the basis for all theories of human personality development is the notion of continuity (Winnicott 1988). That is, we do not stop being one thing (a baby or a child) at some time during our lives and become something entirely different (an adult). Rather we are

in a constant process of becoming which starts at conception and ceases only with death. As mentioned previously too, Merleau-Ponty affirms that we draw along all our past experiences and bring them to bear in the present to act in ways which will impact the future, reinforcing the body-subjects' mutability in their environmental contexts (Merleau-Ponty 1964). While Winnicott takes up Freud's propensity to study infancy by looking back through the lens of psychopathology, he also studies infants themselves, as well as infant-parent and infant-object relations. That is, he studies infants' being-in-the-world and more explicitly infants' becoming-in-time-in-the-world.

In life, humans pass through the stages of absolute dependence, on a trajectory towards relative independence—a state which is not achievable since we are always involved within the world along with others—and in many instances back again to dependence. We are, whether we choose to acknowledge it or not, inextricably linked to the world and its elements, including the other people who share it with us. We have already, albeit briefly, discussed the spread of *écart* and flesh of the world and how this situates us in an ongoing process of incorporation with the world. Winnicott's particular take on this is through the notion of the facilitating environment and the emergence of potential space, which resonates with Merleau-Ponty's *écart* as both consider the spread of facilitating environments.

Infant dependency on the maternal provision, according to Winnicott, is a statement of indisputable fact and that we all, as a condition of our existence, move from dependence through to relative independence and towards independence and sometimes back again. The quality of nurture in the infantile stage of dependence is crucial to the emotional well-being of the child and ultimately the adult that the child will become-in-time. Winnicott's conception of the facilitating environment, enabled in the first instance by the maternal provision of the womb environment, and without which there could be no infant, constitutes the primary relationship that an infant may have with the world and is reminiscent of Merleau-Ponty's conception of being-in-the-world which also acknowledges that environments facilitate being and offer nurture (Winnicott 1960). This link between the world and the maternal is reinforced by such



matriomorphisms—the attribution of maternal characteristics—as mother earth, the mother country, mother nature, mother tongue, mother ship, and significantly when we are speaking of technologies, motherboard. Each of these terms implicates the safe holding spaces which facilitate and contain being.

The facilitating environment however, both is, and exceeds the maternal provision and refers more generally to spaces of containment (Sofia 2000). While Merleau-Ponty speaks of *écart* as the space of non-coincidence, Winnicott suggests that a potential space opens between caregiver and baby, a space which increasingly expands to enable and constrain access to the possibilities for action and experience that socio-equipmental environments afford. The world in both phenomenology and Winnicott's psychoanalysis is the pre-given environment which facilitates being, agency and knowledge and the perceiving body-in-the-world establishes the foundation from which all subsequent knowledge, including conceptual knowledge, emerge.

Very young babies are not aware of a separation between themselves and the external environment in which they live (Winnicott 1957, Merleau-Ponty 1964b). Through the maturation process, the role of material objects is central to the transition from dependence to comparative independence; they intervene into the space between perception and cognition (Lally 2002, 28). While mediating technologies are not a part of an infant's body, babies are not yet able to completely perceive that things belong to the world beyond the child, or the intersubjective world (28). Winnicott has termed this evolving interface between the baby and the world as 'potential space' (28). This understanding of the continuum between the individual and the elements of the world is consistent with Merleau-Ponty's concept of *écart*, the space of non-coincidence, or 'the double horizon of external and bodily space' which precisely affords perception (Merleau-Ponty 1962, 101). Transitional objects offer us a more nuanced understanding of the mediating potential of technologies when used in conjunction with facilitating environments. The layering of transitional objects and facilitating environments allows us to understand how mediation is

overwritten and added to over time, and with experience and social exposure, to compound the affordances of environments as well as the mediating potential to perception and action.

Yet, one of the most significant legacies of psychoanalysis is an account of the affective and emotional development of the unconscious, and how this contributes to conscious, rational cognition and intersubjective action. Ahmed's account of 'happy objects' makes this link between affect and action (or concern and conduct) explicit, noting that we seek to surround ourselves with those things which positively affect us, and distance ourselves from those which affect us negatively (Ahmed 2010). Winnicott's account of concern and conduct, particularly in relation to transitional objects, links ontological security with texture, implicating affect, bodily potential and cognition. Recognising that media and mediating technologies are extensions and reductions of bodily senses and capacities allows us to consider that mediating technologies are also affective in that they elicit certain feelings and consequent action. As Ahmed tells us:

The relationship between movement and attachment is instructive. What moves us, what makes us feel, is also that which holds us in place. Hence movement does not cut the body off from the 'where' of its inhabitation, but connects bodies to other bodies: attachment takes place through movement, through being moved by the proximity of others. Movement may affect different others differently (Ahmed 2004, 11)

The foregoing quote underscores the link between affect, affordances and embodiment. We are drawn to things which positively affect us and shun those which affect us negatively (Ahmed 2010, 32). As such Ahmed notes that affect shapes our contact with objects (Ahmed 2004, 5) which necessarily impacts on affordances. As Tom Fisher points out, Gibson's account of affordances allows us to not only take account of ' "theoretical" or "cultural" knowledge' but emphasises that knowledge is also gained through our physical interaction with objects in relation to the possibilities they afford us (Fisher 2004, 20).

In *écart*, or potential space, Merleau-Ponty uses the term 'chiasm' to describe the primal intersubjectivity of flesh of the world. Chiasm comes from the Greek letter 'Chi' or 'X' and refers to cross-bandaging (Dictionary.com). In cell biology it refers to a point of overlap where fusion and exchange take place in the first

stages of division. The major characteristic of a chiasmic relationship is reversibility which involves fusion and exchange in division. A chiasm is a relationship in which *both* sides incline or bend towards each other ‘interlacing, encroaching, and criss-crossing’ (Wynn 1997, 256). Wynn states:

The human body is an *exemplar sensible*, a structure in which is captured and exhibited the general structure of the world. This body is in a reversible, chiasmic relationship with itself illustrated by the body’s ability to fold on itself. Using perception (vision and touch) and motility as his model Merleau-Ponty describes how perceptual regions of the body both overlap and intertwine (encroach), fold over and spread internally, and also how they criss-cross and overlap and intertwine externally with things and other humans in the world. (Wynn 1997, 256)

Chiasmic relationships and the reversibility of flesh inaugurate the bodies of newborns into the world of object relations and collective perception (Wynn, 1997, 256). Infants’ bodies, like all other bodies, are both sensible—able to be perceived, and sentient—able to perceive, which is what Merleau-Ponty meant by the double-sidedness of flesh. Each becomes a part of the other and simultaneously a part of the flesh of the world. Infantile bodies are sentient and sensible from the start (Wynn 1997, 256); they bond with their lifeworld because the things within their world are part of the same flesh: the flesh of the world. Chiasmic intertwining and flesh of the world facilitate our understanding of the ways in which we all experience the world on a sensory-motor-affective level which is overlain in the process of development with cognition, a position which reinforces the importance of studying infants’ and toddlers’ relations with their socio-equipmental environments as a way of illuminating the mediating capacities of material objects.

## ***Conclusion***

This chapter underlines the importance of considering the very materiality of things and how they become aspects of our embodiment, including our perception of the world and our place within it. Bringing together the complementary areas of phenomenology, post-phenomenology, the study of material culture and psychoanalysis with the concept of affordances allows for a more holistic examination of the potential for media and mediating technologies to co-opt very

young children's experiences as part of a spectrum of their technologically textured world and the importance of it to their becoming in time.

In this chapter, I have outlined the theoretical framework which will inform this thesis. Merleau-Ponty's phenomenology was introduced as a way of restoring infants' and toddlers' bodies to their centrality in meaning-making. I also elaborated on the concepts of being-in-the-world, embodied agency, perception, flesh of the world, *écart*, reversibility, intercorporeality, body habit, incorporation and the notion of 'knowledge in the hands' and how the things with which we habitually engage become incorporated into our bodies enabling us to interact with the world *through* these exosomatic devices.

The notion of 'lifeworlds' was introduced briefly to broaden Merleau-Ponty's approach and enable us to take greater account of the ways in which technological ensembles in the domestic environment, and elsewhere, inform and reflect the shape of the what and how infants and toddlers may experience in relation to mediating technologies. Ihde's definition of technology allows us to consider that technologies mediate our experiences of the world as well as discounting any possibility of a medium free existence (Ihde 1990). Ihde's phenomenology of technics elaborates on the ways in which human-technology relations define our experiences of the world in a number of different ways by both extending and diminishing our perceptual and agentic possibilities. McLuhan's dictum 'the medium is the message', opens a space to argue that 'things' other than merely television, radio, the internet and newspapers are also media, in the sense that they mediate our experiences and understandings of the world.

The study of material culture moreover enables us to examine the potential of objects to shape the world that infants and toddlers inhabit and to take account of the social context of the objects we use in child rearing. Considering affordances in Gibson's terms, has distanced the approach in this thesis from the behaviourist model of media effects by insisting on a relation with, rather than causal effects of mediating objects. As a means to further complement the interdisciplinary approach I will take in this thesis, Winnicott's psychoanalysis was introduced to reinforce the notion of the continuity of being, facilitating environments,

transitional objects and their role within emotional development and cognition. Furthermore, this approach has provided us with the means to reflect on the importance of the texture of the world as children transition from total dependence to relative independence. This led us to consider the concepts of reversibility, chiasmic intertwinings, flesh-of-the-world and *écart* to highlight the complementarity of Merleau-Ponty's phenomenology and Winnicott's psychoanalysis, adding another level of complexity surrounding very young children's development in relation to their socio-equipmental environments.

In the chapters that follow I will apply this compound methodology to deliberate on the implications of a range of technologies with which very young children are involved. In Chapter Two I will initially consider the notion of facilitating microenvironments as proposed by Winnicott (Winnicott 1963) before moving on to discuss container technologies as an extension of the maternal provision and the facilitating environment. In that chapter I will discuss how high chairs, playpens, cots and technologies of mobile containment, such as baby capsules, car seats and strollers enter into children's ontological and perceptual experiences of space. Subsequently, in the following chapter, I will discuss children's developing understanding of themselves as discrete entities through their emerging object relations with feeding technologies, pacifiers and clothing. In Chapter Four, the discussion of toys and playthings will mark the introduction of technologies specifically designed for play and how these, in many respects, may be said to function as transitional objects, but exist on a continuum of technological mediation which is a precursor for children's turn to screens. In Chapter Five, I will explore the medium of television, which some argue is still the primary entertainment technology with which very young children are involved. In this chapter I will suggest that very young children's perception and ontology are mediated by television, regardless of their own understanding of media content, but in relation to how the screen has the potential to attract and hold attention, and how time and space are organised to facilitate the incorporation of television into homes. Finally in Chapter Six, I will elaborate on the relatively new phenomenon of infants' and toddlers' engagement with interactive digital media, focusing specifically on smart phones and tablets. Ultimately I will suggest that the socio-

equipmental environments into which infants' and toddlers' are born, and to which they are gradually introduced, shape children's perception and ontology in relation to the materiality of the mediating technologies in concert which the child's developing corporeality to configure how they may be-in-the-world.

## *Chapter 2*

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# *Being-in-Facilitating- Microenvironments*





## *Being-in-Facilitating-Microenvironments*

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It is only on the basis of dwelling that the cheese can be in the cupboard, that the wine can be in the flask, that the cave can be in the mountain, or that the person can be at home. All positions and locations refer us back to a fundamental manner of being-in-the-world, which must be understood as dwelling.

If we take to heart this understanding of dwelling, then our perception of the place of dwelling appears changed. The home, the factory, the hospital, the laboratory, the city no longer appear in the first place as finished material things, as containers of people and their activities; rather these buildings themselves make their appearance as a certain embodied grasp on the world, as possible human stances, as particular manners of taking up the body and the world, as specific orientations disclosing certain aspects of a worldly horizon. (Jager 1983, 156)

Dwelling, as proposed by Bernd Jager (1983) points to the connection between residing and bodily inhabitation as being shaped by and shaping how we come to be-in-the-world. This is of particular significance in this chapter which examines how the spaces infants and toddlers inhabit configure a range of human-technology relations which texture and shape their world. Infants' and toddlers' development is necessarily imbricated in inhabitation of 'technological cocoons' (Ihde 1975, 13) or technologically enabled facilitating microenvironments. In what follows, these themes will be developed specifically in relation to very young children's experiences of holding, dwelling and inhabitation in a 'technologically textured' (Ihde 1990, 12) socio-equipmental environment.

At the beginning of the 20<sup>th</sup> century the technosphere within which infants and toddlers existed was very different to that of contemporary Western societies. According to Anderson and Evans (Anderson and Evans 2001, 10) day-to-day sights and sounds were familiar, with very little in the way of novelty. They suggest that apart from the business at the beginning and end of a large family's daily activities, homes in the early twentieth century would have been relatively quiet for very young children, as they were entertained by family members in their leisure time with storytelling and music (10). By comparison, audio and audiovisual media, from phonographs, radio, television, videogames, electronic toys, computers, and mobile phones have throughout the 20<sup>th</sup> century turned many homes into what Anderson and Evans identify as 'electronic entertainment and information zones' (10). For this reason 'there may be little waking time in the

lives of many infants and toddlers without the presence of media' (10-11). Despite their rather nostalgic rendering of the pre-electronic domicile, Anderson and Evans are undeniably right to suggest that the world which very young children inhabit in the early twenty first century is markedly different to that at the beginning of the twentieth. As I argued in Chapter One, however, by focusing only on electronic or digital media, Anderson and Evans (2001) and others such as Jordan and Woodward (2001), and Rideout and Hamel (2006) overlook a whole world of mediating technologies and technologically enabled spatio-temporal arrangements which predate both the child, and electronic or digital media.

In this chapter I will go back to basics to examine the spaces that infants and toddlers inhabit, to argue that microenvironments, 'inform and orient our social, personal, and bodily existence' effectively mediating very young children's experiences of the world and their position within it (Sobchack 2004, 136). Focusing on non-electronic environmental affordances is crucial to aiding our understanding that the process of mediation does not only include media but rather also includes mediating technologies. As such, I will examine some of the interconnected microenvironments that contemporary Western infants and toddlers inhabit within a post-phenomenological framework, to offer real-world illustrations of the theoretical perspective forwarded in the previous chapter. Ultimately, I will provide examples of the ways in which technologies of containment which hold very young children in various ways intersect with their corporeality, ontology and perception in and of the world.

At this stage, I will not be considering the objects within these microenvironments at any length, as this will be dealt with in the upcoming chapters on primary objects, toys, screen technologies and interactive media. The bracketing off of technologies of containment into a discrete category allows us to consider the significance of spaces for very young children, and how these spaces enable and determine the perspective that infants' and toddlers' may command—their point of view—as well as their postures, gestures, orientations and mobility. I argue that holding spaces such as baby carriers, cots, playpens, highchairs, walkers, baby capsules, car seats, prams and strollers are unique to infants and toddlers—adults

are not contained in the same way—and that the specificities of human infants’ corporeal schemas in the early phase of absolute dependence significantly delimit their agency within the world. Since human babies’ motor skills develop much more slowly than many other animals, they rely on carers’ provision of nourishment, comfort, warmth, cleanliness and movement within and across space. As such, the human infant exists in a state of absolute physical dependence which necessitates holding in some form or another (Winnicott 1960, 46). As infants mature into toddlers and beyond holding changes and is often facilitated by technologies of containment.

By focusing on microenvironments, this chapter will seek to illustrate that the world as it may be for the infants and toddlers in contemporary Western cultures constitutes a series of facilitating environments, or small nested environments which afford certain types of actions and experiences. In concentrating this chapter on the spaces which infants and toddlers inhabit, and how these may inform their perception and ontology, I will draw on the crucial concepts of ‘the world’, or more specifically ‘being-in-the-world’, as proposed by Merleau-Ponty (1962). In this chapter I will consider Winnicott’s (1972) concepts of the ‘facilitating environment’ and the ‘holding phase’ of complete dependence and how holding transforms in concert with infants’ and toddlers’ developing corporeality and relative independence (Winnicott 1972).

For Winnicott there are universally three stages of infant development: absolute dependence, relative dependence and towards independence (Winnicott 1972, 9). Given the continuity of adult life with childhood, we should recall that although we may strive towards independence we will never fully achieve it as we are undeniably involved with our environments, and the people and things within it, *and* that these stages are not discrete but rather part of an ongoing process. As we continue to be dependent upon environmental provisions, the facilitating environment remains an important aspect of our existence throughout life, and our being-in-the-world, as part of the flesh of the world, is an ongoing immutable fact of our existence. Primarily, however, I will consider facilitating microenvironments as they relate to infants in the primary stage of total dependence, before moving on to those which are more commonly used as the

child becomes more independent, to argue that the types of holding spaces that children inhabit allow them to see and touch some things and not others, as well as changing the perspective from which they may take in their surroundings. The specificity of each of the microenvironments analysed in this chapter—baby carriers, cots, playpens, highchairs, walkers, strollers and prams and baby capsules – further articulates the position that I have taken thus far, in arguing that the specific material properties of mediating technologies variously constrain and enable children’s capacities to actively engage with the world.

### ***Being-in-Facilitating-Microenvironments***

In this section I will revisit the phenomenological concept of being-in-the-world, which necessarily involves being in a context. By introducing the notion of microenvironments in houses and cars that are specific to very young children, I will suggest that they can be considered small environments; environments within environments, and often intersect with and overlap other environments. These microenvironments are places of significance which are constitutive of and constituted by infants’ and toddlers’ place within them, in concert with their capacity to aim at the world through them. This in turn, delimits what they may perceive, particularly what they may and may not touch, as they are intrinsic to the spatio-temporal arrangements of their lifeworld, enabling waiting, anticipation and arrival, regulating mobility, reach and sometimes vision, and at times doing all of these things simultaneously. In short, the infant- or toddler-world relations are mediated in part by technologies of containment. Aside from the facilitating environment of the womb or carers’ physical holding, the spaces that very young children inhabit are technologically enabled. That is, they are enabled by a number of various artefacts. For example, a cot is one of the first instances of a technologically mediated microenvironment or small space which infants and toddlers inhabit, informing their early understandings of the world and their place within it. As babies’ capacities to move within, or out of them, and into other spaces develops, microenvironments become significant spaces of a different kind: spaces which can be transformed and traversed. Hence infants’ and toddlers’ emplacement within cots becomes more mutable and flexible in both significance and agency in response to the child’s developing embodiment.

Prior to moving on to speak about the types of technologically enabled microenvironments that very young children inhabit, it is worth spending a few moments on the concept of space. As Merleau-Ponty points out, his concept of being-in-the-world implies that we are all necessarily spatial beings. Just as all action and perception cannot help but be spatially situated; children's developing embodiment is always evolving in, and in relation to, space. As Haim Gordon and Shlomit Tamari tell us:

My body is always at every moment living as a spatial being and relating spatially to other beings. Every color and form that I see is in space, every word that I hear comes from somewhere in space, as does every odor that I smell. All movements, all interactions of my body require that I live as a spatial being. . . Our body is of space because any human perception or action or movement in the world requires that the person's body relate spatially to other beings. (Gordon and Tamari 2004, 70)

Space, therefore, cannot be considered as abstract, absolute or universal, but rather must be thought of as an integral aspect of who we are, how we relate and interrelate with the world and others, and what we can and cannot do. Space, as Henri Lefebvre (1991) points out, is produced by living things moving about in it. As Lefebvre argues, 'Cartesian logic', which adheres to the primacy of the thinking subject, allowed us to consider space as absolute, universal and neutral: as an object which is perceived by a subject (Lefebvre 1991, 1). On this formulation space exists absolutely and independent of any perception of, or action within it, rather than as an integral part of being-in-the-world.

As the above quote from Gordon and Tamari (2004) illustrates, any delineation between object and subject in relation to space is untenable as we cannot be, or do anything, unless we are and do in space. As embodied beings with particular dimensions we necessarily occupy space, we move about in space, we express ourselves in space and importantly we perceive in space. Hence as Gordon and Tamari aptly note 'our body is of space' (Gordon and Tamari 2004, 70). Lefebvre (1991) asserts that, 'spatial practice consists in a projection onto a (spatial) field of all aspects, elements and moments of social practice' (8). Consistent with Merleau-Ponty's (1962) account of being-in-the-world, Lefebvre (1991) points out that, 'human societies, like living organisms human or extra-human cannot be conceived of independently of the universe (or the "world")'

(1991, 12). Lefebvre (1991) importantly recognises that space is experienced before it is conceptualised, and to assume the primacy of conceptual knowledge of space does not take adequate account of lived experience (Lefebvre 1991, 34). We should however, approach this assertion with some caution, as conceptual knowledge and lived experience are not mutually exclusive, but rather equally as aspects of embodiment and our embodied relations with our environment. Nonetheless we must recall that in the first instance we are embodied beings and that conceptual knowledge develops as a consequence of our embodiment (Merleau-Ponty 1962). The foregoing thus speaks to the primacy of embodied being-in-the-world and primary intersubjectivity in analogous terms to Merleau-Ponty's phenomenology. While cultural geography argues that 'place' is a more appropriate term to describe 'profound centres of human experience' which are sources of 'security, comfort, stability, nurturance, belonging, meaning and identity' (84), these qualities are inherent in both Merleau-Ponty's concept of being-in-the-world (1962) and Lefebvre's 'social space' (1991, 34). Consequently throughout this thesis I will adhere to the concept of 'space' in this phenomenological and embodied sense with all of its implications for the specificity of human beings. Moreover it will be used to define microenvironments as small spaces that are inescapably lived, experienced, secure, comfortable and meaningful but also sometimes threatening and risky.

Spaces are assigned particular uses, and thus meanings, and are consequently able to be considered social spaces, or spaces of social practice (Lefebvre 1991). Space produces and is produced by human activity; it constitutes and is constituted by embodied agency within the world. Lefebvre suggests that social domestic spaces, enclose and allocate appropriate places to people based on age and the general organisation of families (Lefebvre 1991, 32). In this way they may be said to contain cultural understandings of the roles and appropriate positioning of bodies in familial hierarchies. Hence social spaces may be said to be the bearers of intelligence. Citing Gregory Bateson (1987) Sofia tells us that:

Intelligence is not confined to the deliberations of the intending ego or *cogito*, but can be found in the changing patterns of mutual adaptation and co-adaptation undergone within and by the organism-environment ensemble. The environment itself is a bearer of intelligence (Sofia 2000, 183)

In *Container Technologies* (Sofia 2000), Zoe Sofia employs Winnicott's theory of the facilitating environment of holding space to argue that technologies are facilitating, holding, containing environments, which are not empty (dumb) spaces but rather bearers of information. Consequently, container technologies, as conceptualised by Sofia, contain space—among other things—but space is implicitly smart space (2000). The 'smartness' of space emerges 'in the dynamic mutual adaptability of environment to organism [and] organism to environment' (183). Smart space is thus a space of potential meaning and action which facilitates particular ways of being.

As we mature we come to inhabit increasingly expansive and numerous spaces. Although Thrift (2006) does not explicitly refer to them in terms of 'microenvironments' or 'places' he nonetheless implicates them in the following quote, which states that we come to inhabit:

a constantly expanding universe of spaces and territories, each of which provides different kinds of inhabitation – from the border-ing provided by the womb, through all the things in the home that are just out of reach, through the corporeal traces of buildings and landscapes (1)

Consequently I have chosen to consider 'microenvironments' in the plural, to signify the multiplicity of particular environments which very young children inhabit, the 'different kinds of inhabitation' afforded by them, and in terms of the situatedness of embodiment.

While microenvironments are undoubtedly physical spaces, they are nonetheless also 'social spaces' which signify social relationships and social 'standing' while simultaneously facilitating particular points of view. Point of view in this instance should be read as emanating literally from our embodied being and thus where we are located within spaces, but also, more metaphorically as an 'attitude to' or 'stance in relation to' something or other. I have also used microenvironments in the plural, to suggest that any one particular child, or indeed adult, may inhabit multiple specific environments consecutively and simultaneously, and furthermore, that these environments mutually adapt along with the people who

inhabit them. In this plurality of spaces, ‘social spaces’ map affinities between bodies and meanings (Shields, 2006: 148). As Thrift (2006), tells us, everything

is spatially distributed, down to the smallest monad: since the invention of the microscope, at least, even the head of a pin has been seen to have its own geography. Every space is shot through with other spaces in ways that are not just consequential outcomes of some other quality but live because they have that distribution. (2)

Infants, like adults, are primarily embodied perceiving subjects or body-subjects, who in-habit the world within bodily space which defines their ‘point of view’ at the level of embodiment, as the only view of the world that they can have (Merleau-Ponty 1962, 101). Moreover, it is arrived at from ‘the double horizon of external and bodily space’, generating a perceptual field that defines the range of possible perceptual options within environments (Merleau-Ponty 1962, 101).

In this instance I have deliberately chosen to use the collective pronoun, ‘our’, in recognition that there is an essential element which binds all living things: bodily existence. The notion of bodily existence implicates an ecological or environmental intercorporeality, or an intertwining and interdependence between living organisms and environments. Thus, as Acampora (1999) notes:

one promising thread of organismic ontology proposes that existential residency might be an elemental world-relation omnipresent throughout the carnate (or at least animal) realm (119)

This resonates with both the phenomenological notion of being-in-the-world as a philosophical ecology (Ihde 1990), and Gibson’s understanding of affordances as an ecological relation (Gibson 1986), in that each recognises the interdependent relationship that exists between ‘organisms’ and their environment. Thus as Wynn (1997) states:

How the infant evolves in his (sic) specificity is dependent on the human environment within which he is anchored and its responsiveness to his interrogations and explorations. (262)

As Bateson (1987) points out, ‘the unit of survival is a flexible organism in its environment’, which reinforces the contention that we cannot regard ourselves as existing as anything but a part of our lived environments (457). To illustrate this fundamental dependency, and thus, intrinsic link which we have with our



environment we may consider Winnicott's (1960) argument, that is without the facilitating environment of the womb there could be no infant (Winnicott 1960, 39n). This is an apparent and irrefutable fact of our existence, even with the increased possibilities allowed by genetic engineering and other reproductive technologies; without the facilitating environment of the womb, an embryo cannot grow to become an infant.

Sofia (Sofia 2000) extends the concept of the facilitating environment to apply to it other spaces that we inhabit, in her article *Container Technologies*, in which she adapts Winnicott's notion of the facilitating environment as the holding space which literally and metaphorically facilitates being. Hence, I suggest that it may be considered more generally as a space of nurture, or of socio-material provision. Sofia signals the reciprocity of our relationship with our environment, arguing that if we destroy our environment we destroy ourselves (Sofia 2000).

The facilitating environments of cots, highchairs, playpens, walkers, baby capsules, car seats, prams and strollers are essentially holding environments or container technologies which serve to reduce the danger to infants when they are solely dependent upon carers (Winnicott 1960, 47). As such, facilitating environments may be considered as not only the maternal provision necessary for survival, but environments which bear with them an 'inherited potential' to establish and maintain a 'continuity of being' (Winnicott 1960, 47). Facilitating microenvironments provide the material conditions of existence, which as Lally suggests:

may also act in an 'anchoring' mode, as 'scaffolding' for the self, as placeholders which have a role for individuals in maintaining ontological security and a sense of self in everyday life. (Lally 2002, 25)

The holding environment is primarily a safe place which protects infants from physiological harm, taking account of their sensitivity to touch and temperature, their auditory, visual and skin sensitivity, their sensitivity to falling, and 'the infant's lack of knowledge of the existence of anything other than the self' (49). It is a safe space in other senses, facilitating being in the most literal sense, but also enabling infants to develop an understanding of themselves as discrete beings-in-the-world, by supporting the constancy of being (Winnicott 1960, 47). However,

Winnicott's notion of the facilitating environment, while taking account of facilitation does not allow for the delimitation or reduction of experience, action and perception that is implicit in containment.

Facilitating microenvironments are significant spaces which both are, and exceed the maternal provision of nurture. They are spaces which constitute and are constituted by social activity, configuring how very young children may experience, perceive and act in the world. As such space cannot be considered as abstract or neutral but rather must be deemed to be an integral aspect of our being-in-the-world. This will be further illustrated in the following section on baby carrying technologies.

### ***Technologically Enabled Baby Carrying: Carer-baby-technology complexes***

Baby carriers are some of the first and most notable extra-uterine technologically-enabled facilitating microenvironments (small environments which facilitate potential action and perception). In such a device the spread of *écart* between mother and child is minimal, allowing infant and care giver to move as one. The depth of the chiasm between carer, baby and technology constitutes a carer-baby-carrier assemblage in which the technology becomes an aspect of both the carer's and baby's embodiment (Ihde 1990). Consequently, the intertwining of caregivers' and babies' bodies in the moving-being moved of rocking:

involves depth because they come close and simultaneously spread away into their own particularity. Their determinate qualities in this situation, for example, the way that the mother's body folds over the infant in her arms, the corresponding manner in which the infant leans into the rhythmic movements of the mother and smiles as he is sung to, and the style in which the mother listens to the touches of her infant's hands, are surfaces of "an inexhaustible depth" each brings to the encounter (Merleau-Ponty, 1968, p. 143). Their depth has been partially formed through a past of former coilings over of their own and other bodies, and the given particularities of a body that are those first 'innate' ways it has of folding into and over the world particular to its own contingency'. (Wynn 1997, 255)

By enabling caregiver and baby to function ostensibly as a single unit, the baby carrier affords babies' experiences of the reliability of the facilitating environment which nurtures the illusion in the infant that care happens in response to his or her felt sensations of bodily wellbeing or otherwise.

That is, it allows the infant to feel the caregiver's warmth, heartbeat and breath, and hear their heart beating and breathing, and in this way allows a somatic remembrance of the prenatal experience. The gentle rocking motion generated as the caregiver walks acts to partially simulate the prenatal facilitating microenvironment of the womb. The baby held in the carrier shown in figure 2.1 is also close enough to smell the breast milk of a lactating mother, to stimulate its production and enable breast feeding. As a secure space of containment which protects the child from physical harm baby carriers may be considered technologically-enabled facilitating microenvironments which inform infants' of how security within the world feels, smells, looks, tastes and sounds.



Figure 2.1 – Carer-baby-carrier Assemblage (Portablebaby.com) (2005-2013)

In this stage of almost total dependence, while an infant may become aware of their discomfort and can increasingly relate them to their own desires, they are dependent upon those needs or desires being anticipated and met on their behalf (Winnicott 1960, 46). As infants or toddlers move more towards relative independence, they develop ways to fend for themselves, at least to some extent (Winnicott 1960, 46). This is achieved through a gathering of 'memories of care, the projection of personal needs and the introjection of care details' which come from their developing confidence in the reliability of their environment, or as Lally puts it, their growing ontological security (Lally 2002, 25). Yet this should

not suggest that the caregiver is active and the child passive, for the world and the things and people in it, touch us as we touch them, incline toward us as we are inclined to them in a reversible intertwining relationship wherein each is involved with the other (Wynn 1997). As such, the move towards relative independence is also achieved by the child's own developing corporeality and their increased control over bodily functions and motility as well as the gradually widening of the spread of *écart* and the flesh of the world that rushes in to fill it as the maternal provision recedes.

The mediation of very young children's being-in-the-world by the technological intervention of baby carriers is both historically and culturally specific. For example, while baby carrying devices have been used in African and Asian cultures for many years, they have only become popular in Western societies since the mid-1980s (Rose 2010). According to Rose, 'the first structured baby carrier appears to have been developed in 1969 by a woman called Ann Moore' yet it did not become popular in the United States until 1985 (Rose 2010). Hence carrying babies in slings and carriers, such as that shown in figures 2.1 and 2.2, is a relatively recent phenomenon in the Western world.

In Western developed societies, baby carriers are recognised as technologies since they are manufactured for the express purpose of baby carrying. Yet this is not universal, even within Western societies, and certainly may not necessarily be the case in other cultures. For example, baby carrying may be done with the aid of a multi-purpose shawl—Rebozo—favoured in Mexico and Guatemala, a piece of fabric tied in a knot—Manta or Aways—used in Brazil and Bolivia, a Pareo which doubles as a skirt in Tahiti, or a multitude of cloths or sheets used in Ecuador, Indonesia, Kenya, Mozambique, South Africa, Egypt, China, Thailand, Vietnam, Laos and many other countries (Rose 2010). Each of these are, however, technologies, despite our propensity to think of them otherwise: they have a material element and enter into human praxes in relation to their production, design and use (Ihde 1993). Baby carriers are used differently in different environmental conditions and thus speak to an environment-tool relation. Blaffer-Hardy suggests that the 'technological revolution' of baby carrying may have enabled the spread of humanity out of Africa, up to 50,000

years ago by enabling mothers to carry food as well as their baby (Blaffer-Hardy 2000, 197).



Figure 2.2 Example of Western Baby Carrier (Parenting by nature) (2004-2012)

There may also be differences between baby carrying practices of nomadic and pastoral cultures (Rose 2010). The use of slings for nomadic or foraging mothers overcame any need to leave their babies with other care givers while they foraged. Pastoral mothers were not faced with such problems as they were closer to their babies at all times, but a sling meant that babies could be fed without much interruption to daily chores (Rose 2010). Climate and other living conditions also influence the position and materials of baby carriers. In warmer climates such as those surrounding the tropics like Indonesia, Laos, Vietnam, Kenya, Egypt and Mexico, babies need to be fed more often and are thus, usually carried, at least in early infancy, on the front of the mother's body as is also common in today's 'baby wearing' practices (Rose 2010). In the cooler climates of Scandinavia, Canada and other parts of North America babies were often placed in 'cradles or hammocks,' which were then strapped to 'cradle boards animals or sleds for transportation' (Solter 2001, 77). Largely, however, the positioning of the baby is a consequence of the necessity to be able to perform various tasks.

In contemporary Western cultures, very young babies are typically carried facing towards the wearer as in figure 2.1 and 2.2. As Lakoff and Johnson (1980) point

out ‘spatial orientations arise from the fact that we have bodies of the sort we have and that they function as they do in physical space’, and because of the sorts of bodies we have, our ontology is forward facing since that is the way we would normally move (Lakoff and Johnson 1980, 14, 16). Yet in Western baby wearing, infants are positioned with their backs to the world, which elides babies’ possibilities for social interaction, which is consistent with the relatively modern notion that babies ‘belong’ to the person who is doing the carrying, and leaving them out of the network of interaction is considered appropriate. This is consistent with the change from the mid eighteenth to the nineteenth century, when, as we have seen, attitudes to children changed; where formerly they had been integrated into adult society as soon as possible, barriers were placed between children and the adult world (Calvert 1998, 71). The intimate carer-facing position also establishes a personal, nurturing and protective space between carer and child.

The facilitating environment is very young babies’ habitus and includes all of the habits of holding and nurture. When things go well, in the holding environment, the care, and indeed the carer, go largely unnoticed and are experienced prophylactically as a mere continuation of the prenatal environmental provision (Winnicott 1960, 46,49). As such, technologies such as baby carriers act as exosomatic corporeal devices which mimic, to a greater or lesser extent, the maternal provision. Carrying babies in this way not only mimics the maternal provision but also affords a minimal spread of *écart* by allowing a deeper chiasmic intertwining of carer and infant.

Western baby wearing affords caregiver action and perception, but imposes orientational, postural and gestural constraints on both carer and child, while simultaneously enhancing the carers’ capacities to adjust their own orientations, posture and gestures which may not be possible if they were carrying the baby without a carrier. See for example, figure 2.2, where the technology of the baby carrier allows the carer to carry a sleeping baby and simultaneously squeeze lemon into a beverage. The perceptual horizon of the infant in this case is oriented toward the carer and the close proximity of carrier and carried delimits the baby’s possibilities for movement within the environment until such times as the baby’s embodiment has matured sufficiently to enable them to resist or exceed

their containment. Nonetheless, the mother-baby-carrier complex acts as a dynamic and variable ensemble which allows the child to experience the world through their own and their carer's embodiment *and* through the technology of the baby carrier. As children get older they tend to be shifted to backpack arrangements, widening the spread because the back is further away from the 'face' of the carer, and faces outwards towards the world, allowing more of the flesh of the world to fill it, while still providing a safe holding space. The older child's perceptual horizon is thus expanded and their point of view is the same as that of the carer, preparing the child for relative independence.

### ***Cots (or Cribs): Emplacement and Motility***

Another example of a facilitating microenvironment which very young children inhabit is the cot, or crib. Cots are not only functional (technomic) spaces for infants and young children to sleep in; their design and manufacture is increasingly focused on their safety as a holding space. To manufacturers, cots mean many of the same things as they do to carers in that the importance of the safe holding environment is crucial. Cots, like other spaces of containment are manufactured and designed to cater for the variability of affordances they offer, and this must include uses for the child. Hence manufacturers need to take account of cots' safety beyond their function as places for sleeping to allow for the possibilities of very young babies rolling, and toddlers climbing out. Cot manufacturers are painstakingly aware of the need for cots to be safe spaces which facilitate carer and infant separation while providing a flexible space of containment for babies. Also, in most of the Western world safety features are mandated. As such, for manufacturers, parents and babies, cots are facilitating microenvironments. For manufacturers, cots must be doubly safe, given that the security of very young children's embodiment lies in design and manufacture, and adherence to safety standards protects cot makers from litigation.

Australian and New Zealand safety standards in cot construction and design have been in place since 1995 and are mandated under AS/NZS 2172:1995 (Australian and New Zealand Standards 1995). The standards regulate a number of safety requirements for cots and state that:

These requirements include material, design, construction, performance, labelling and marking, all of which are important for the well-being of children who use cots. (Australia and New Zealand Standards AS/NZS 2172:1995)

In recognising the need for safety, manufacturers and policy makers have been forced to recognise the potential risks that cots may also pose in the face of the diverse affordances that they may present infants and toddlers.

Moreover, if very young babies are placed face down, they are not yet able to roll over which has risk implications for suffocation, consequently the arrangement of the safe body has changed in the last twenty years. While they cannot roll, from very early on, infants are able to ‘squirm’ forward, but not backward, so the inclusion of soft toys, or bumpers, like the one shown in figure 2.3, provide protection for the head but can add an additional element of risk of suffocation.



Figure 2.3 Cot Bumper

The capacity to ‘squirm’ forward may facilitate a baby’s first encounter with a hard surface that does not yield. From this type of encounter babies learn that bodies and objects do not coincide, informing the child’s understanding of him or herself as a discrete entity in the world along with material objects. Furthermore, as cot spaces are usually dimly lit and away from the noise and activity of the rest of the house, babies come to learn that there is a place for ‘sleep’, characterised by containment, quiet, and limited activity and light.

The world as it may be for very young babies is a world experienced on the sensori-motor-affective level. Yet what they may experience is largely a matter of their containment and emplacement within the world in the early months of their lives. Since their motor skills are immature, their emplacement within any



environment, as well as the physical characteristics of the microenvironments themselves, mediate infants' experiences of the world in an organic relation of flexibility, adaptability and resistance (Jager 1983). That is, the physical characteristics of the technologies which contain very young children, in concert with the child's developing and gradually organised corporeal schematics facilitate and constrain experiences of movement, orientation, posture and gesture.

For example, at the beginning of my research Emily and Kane were unable to walk or crawl, although they were able to sit unaided and roll from side to side and back to front. Each had their own cot which was positioned against a wall on opposite sides of the room, imposing to some extent particular points of view—what they could see was, in part, a consequence of the positioning of their cots. There was a window between the heads of their cots and while each child could move sufficiently to see something beyond the window, what each saw was limited by their ability to move, crawl, stand, sit or roll over. This configuration enabled the experience of light and darkness. The foot of each cot faced, more or less directly, towards the bedroom door, permitting them to see people as soon as they entered the room as well as the traffic up and down the hallway when the door was open. The very doorness of the door is significant too, in that it allows caregivers to open or close-off sights and sounds and potentially other experiences to the twins. While the cots themselves were in relatively fixed positions within the room, the twins' developing embodiment enabled them to roll over, and change their position within the cot to attend to toys, mobiles, the window or the door, albeit in ways which are regulated by the cot-structure and its placement within the room. The cot environment may therefore be considered as flexibly accommodating the babies' developing corporeality.

With their developing embodiment, the twins were able to change their perspective and cultivate body habits facilitating use of the cot as an aid to pull themselves up onto their feet, enabling them access to broader points of view. In this way, the cot enters into an embodied relation with the child to afford experiences of the world both with and *through* the cot, effectively mediating perspective and other capacities to act in relation to it (Ihde 1979). Their growing

mastery over their own bodily movements, facilitated in the safe space of the cot, hence allowed them to adjust their comportment so that they could see each other, see out of the window, lie on their backs looking at the ceiling or the mobile, or play with their feet or whatever else was at hand. Thus as children's embodiment develops their world expands, and the spread of *écart* widens, permitting more of the flesh of the world to enter into their perceptual fields, literally expanding their horizons. As such the cot transforms from a space for sleeping to a more flexible holding environment that affords greater possibilities for action.

Although it is tempting to consider that placing young babies in cots, cradles or other technological holding artefacts may only *limit* what they can experience, we must recognise that babies experience a world consistent with cot inhabitation. That is, they can see, touch, taste smell and hear things both within and beyond the cot which are specific to their emplacement within it and their own embodiment. For these reasons, while cots generally are holding environments which protect children from harm to their wellbeing, very young children's situatedness within them constitutes a particular cot *habitus*, with constraints and enablements to mobility, and consequent perception, as well as encouraging habits of sleep. As babies' bodies are their opening onto the world, their emplacement within cots enables them to take in the world in specific ways which are often soft, warm and spacious but which are bounded by unyielding, often slatted sides, which facilitate sleep but also visual exploration of the world outside the cot in a regulated way. As children grow older too, the relatively static, yet flexible environment of the cot may afford a wealth of perceptual opportunities consistent with the child's maturing corporeal schemata. The distance to the caregiver is wider for the cot dweller than for the carrier dweller and the flesh of the world which fills the widening *écart* is rich with the textural features of the sheet, pillow and/or blanket against the baby's skin and the smells which accompany them, constituting but also mediating how the world is and can be for them.

Apart from being a place to 'learn' the habit of sleep, cots serve a number of other functions, not the least of which, as I have already mentioned, is to hold babies safely in place and to protect them from physical harm. Yet, cots like baby

carriers are culturally specific and variable in their use. They can, for instance, be used for sleeping, play, watching television or videos, for storage, to keep babies safe by preventing them from touching hot or sharp things or prevent pets and other children from touching them. They can block a doorway; act as a climbing frame, a punishment, a place to read, or even a vehicle within the home! In wakeful periods when babies are not crying, cots can afford safe containers for young children which allow carers some time and space of their own, or briefly engage in other activities, such as a shower, housework, watching television or making a phone call. Cots also present opportunities for caregivers to gradually withdraw the parental provision, while still being able to reappear reliably to reinforce babies' experience of the continuity of care. In doing so, it allows the infant to gradually be introduced to more and more of their environment without compromising their ontological security, unless of course the carer does not return in response to the babies summons through a call or cry. When the body-cot relation is exceeded through corporeal maturation from infant to toddler, the assemblage changes to one which affords climb-into-ability, climb-out-of-ability, climb-on-ability, yet it still retains the affordances of sleep, play, reading, safety, and potentially isolation and boredom.

Especially in early infancy when babies are fully dependent, they are always held in one way or another; whether it is in arms, carriers, cots or prams, their early experiences *are* of holding which shifts from one space to another. As the infant develops, this experience includes resistance to, and liberation from holding, as containment increasingly becomes a challenge to be overcome. For infants and toddlers, the cots' possibilities are dynamic and flexible in response to the child's own maturing embodiment. Cots offer rich textural features, sensory experiences, changing points of view and possibilities for action. They inform the child's understanding of their place in the world at a particular time and place, and while they may be waiting or sleeping spaces, they are also playing spaces. Cots too, are a part of the flesh of the world which fills the gradually widening space of *écart* between carer and child—which must exist for perception to take place—and presents itself to the child, to take into his or her understanding of the world. As Merleau-Ponty reminds us, our glances are not 'acts of consciousness...but openings of our flesh which are immediately filled by the universal flesh of the

world' (Merleau-Ponty 1964, 16). Hence for infants too, it is a safe place which facilitates a growing understanding of themselves as discrete beings, who can act and be acted upon within the world in relation to the cot as mediating technology. They are invocative spaces which nurture an expectation of appearance and disappearance. They are places of waiting and arrival.

Cots are thus microenvironments which facilitate the gradual acquisition of body knowledge. The sides of the cot, for instance, present themselves to babies as a means to augment their capacity to act within their environment. As any parent will know, babies who are not yet able to stand unaided, use the sides of cots to pull themselves into a standing position. The perceiving acting body *is* knowledge which is the fundamental corporeal reality that organizes and is organized within the world as a ground of meaning and action. Through repetition, babies' corporeality, which is initially relatively indifferent to conscious intention, learns the habits of standing, and bouncing by incorporating the cot into their corporeal schematics unaided. That is, conscious intention emerges and develops in tandem with the capacity of the body to take part in the affordances of the cot. Hence cots operate as a field of meaning which augments infants' agency within the world, informing their primary corporeal reality. While cots afford standing and bouncing inhabitation, the softness and consequent instability of the mattress does not readily afford walking. The repetition of attempts, failures and successes, informs the cultivation of body habits which develops into children's future capacity to stand, and ultimately walk. Initially, the cot sides will be at the forefront of babies' attention but as the child's corporeal schema incorporates them into their capacity to act they become an unnoticed aspect of their embodiment. The corporeal schema constitutes body knowledge, which is forthcoming only when bodily effort is made, and cannot be formulated in detachment from that effort (Merleau-Ponty 1962, 144). That is, our body and its instruments combine to act as *the* medium through which intention becomes action. The cot recedes into the background, only to become the focus again when the body exceeds the cot, and enablement becomes constraint and barrier.

### ***Playpens: Variable Containment***

While cots represent a specific type of containment that encourages habits of sleep, playpens, while they may be used in this way, are spaces of containment which are designed for safe play. This section will consider how very young children experience playpens and how playpens mediate their experiences of the world, partially imposing a point of view, but also offering opportunities for flexible affordances in response to children's maturing corporeality, and facilitating the cultivation of body habits. A playpen is another highly regulated and disciplined space. Playpens come in many shapes, sizes and designs, but the common marketing rhetoric surrounding them emphasizes their protective qualities. For example, the Baby Equipment Hire webpage describes the playpen as, 'A safe environment out of harms (sic) way for when your back is turned...the playpen is a handy safe play area for your child' (babyequipmenthire.com.au). Containment is a key concern and playpens are another mediating technology which caters to our concerns for infants' and toddlers' safety.

The mothers who participated in this study expressed a need to be assured that they could leave the room to attend to other necessities, like a shower or housework, knowing that their children were safely contained in some way or another. When I first visited Christine, Steve and the children, I asked them if they had a playpen for eight month old Molly. They answered:

Steve: We have got a playpen but we only tend to use it to put over the top of the heater (laughs) (excerpt from interview with Christine and Steve 15/7/2005)

This demonstrates the flexible affordances that playpens offer to parents: spaces to contain children, but also spaces to contain things that we do not want children to touch. The above excerpt illustrates that safe spaces are not only spaces which partially contain but can also be spaces which partially shut out; they are both 'keep-in' and 'keep-out' spaces which inform babies' understanding of reach and not-reach, setting up particular body-object-world relations. Yet, while playpens determine what very young children may touch and taste, they do not constrain audition and only partially inhibit vision, affording a regulated perspective.



Figure 2.4 Wooden Playpen



Figure 2.5 Moulded Plastic Playpen

Christine's first playpen was similar to that pictured in figure 2.4. By my last visit, Christine had got another playpen. Unlike many playpens which are reminiscent of wooden, or aluminium cages like the one in figure 2.4, Christine's playpen was made of moulded plastic (see figure 2.5). This type of playpen, while being more durable and potentially safer from splinters and rough edges, offers additional visual and kinaesthetic interest for babies. It is brightly coloured, a characteristic which is often used in a number of child specific contexts to signify 'kid's space' as distinct from adult spaces. The playpen in figure 2.5 has movable parts for its inhabitant/s to manipulate, adding visual, haptic and aural interest and affording additional possibilities of play-with-ability, push-out-ability and make-noise-ability to name but a few. It has thicker walls, effectively rendering it a less visually permeable space than the cage-like playpen in figure 2.5, yet it allows for things like arms and toys to pass through it. Playpens are also mobile containers which offer different affordances dependent upon the places they are put. For example if a playpen is placed on a tiled floor, it affords

different experiences to those afforded if it is placed on grass or gravel in the yard. The playpen can slide around on the hard, flat, relatively shiny tiles whereas the uneven but relatively soft grass will not allow this, and grass or gravel may make it easier to catch and topple over if the child attempts to slide it. The feel under foot, hand, back, bottom or head likewise may be softer on grass than on tiles or on tiles than on gravel. Babies are also more likely to get dirty, cut, bitten or eat something which is not necessarily hygienic on gravel or dirt, so the placement of a playpen contributes to its ambiguous status of as a safe container. Hence the affordances of playpens intermingle with the affordances of the environment, such as toppling over or sliding, compromising the safety of the child-playpen assemblage.

On the occasion of my last visit to Christine's home Emma had dropped her four children by for Christine to baby sit while she attended an appointment. This meant that Christine had seven children under the age of five in her care—quite a handful! As the twins were the only children who could not walk, Christine placed them into the playpen in the corner of the playroom where the other children were playing. This illustrates the 'keep-in' and 'keep-out' character of facilitating microenvironments referred to above. Not only did the playpen safely contain the twins so that they could not hurt themselves, it also protected them from being stood on or tripped over by the other more mobile children. The risk then, is reciprocal, alleviating risk from others and risk of the child's own exploratory ventures.

The twins were unaccustomed to being contained in a playpen as Emily did not have one. Kane initially sat with his back to one of the side walls, basically remaining where he had been placed. Emily sat in front of him at right angles to the wall. For several minutes both babies sat relatively immobile on the ceramic tiled floor. When Kane and Emily were seated in the playpen, their head height coincided with the thick part of the playpen with the brightly coloured shapes in it. As such, the playpen afforded particular visual perceptions consistent with quasi-aloneness, offering all the pleasure and displeasure of a game of 'peek-a-boo'.



Figure 2.6 Quasi Aloneness

As children become more able to move about, the visually mediating capacity of this type of playpen changes and becomes more mutable. Despite the apparent constriction of perceptual opportunities for a relatively immobile Kane, a more mobile (older) child experiences it very differently, as will be discussed in more detail in the context of Jacob's engagement with the playpen. Furthermore, while playpens compared to rooms constrain less mobile children's point of view, this particular playpen offered different possibilities for agency as places for playing than a cot as a place for sleeping or a baby carrier as a place for holding.

Playpens are bigger than cots, and offer much more room, and consequently, opportunity for children to adjust their bodily comportment, including their orientation, than in a baby carrier or cot. Hence a baby who is able to roll over or crawl can avail themselves of varying points of view both within the playpen, and of the world beyond it. Furthermore, this particular playpen offers inbuilt activities in the form of the movable plastic shapes which babies can manipulate dependent upon the maturity of their embodiment and consequently their capacity to move to or reach them. The playpen is also placed in the 'communal space' of the family room where eating, noise and mess are permitted, further denoting it as a play space as distinct from the bedroom and cot which are designated as sleeping spaces.

Although Kane was relatively immobile, in that he was not able to walk or stand without assistance, he was able to extend his reach in the world by using the very



thing that contained him: the playpen became an aspect of his embodiment. The playpen constitutes a holding space, but more importantly, a facilitating microenvironment, which enabled him to act in a way that he could not, without it. The playpen thereby functions to augment babies' developing corporeality, supplementing their developing embodied capacity to act.

While many of us may take standing for granted, we should remember that it is an achievement: the realization of repetition and the cultivation of a body habit. As also mentioned previously, babies, almost invariably, *use* things that afford pull-up-ability to assist their bodies to learn to stand, and often walk. Initially, once a baby is able to sit unaided, they reach up and out to come to grips with the world. The opening of their flesh is filled with the flesh of the world, including the flesh of both cots and playpens. Rather than considering that the child unilaterally appropriates the playpen, we should recognise that the playpen presents itself to the child as an agentic environment to be inhabited and that the affordances are flexible as the child-playpen relation evolves. Like eating or driving a car, standing is a body habit which constitutes an achievement of the body for, and play an integral role in the primary organization of our own bodies. Our bodies come to understand, or experience 'harmony between intention and performance', in cultivating such habits (Merleau-Ponty 1962). As Merleau-Ponty points out, 'A movement is learned when the body has understood it, that is, when it has incorporated it into its "world", and to move one's body is to aim at things through it' (Merleau-Ponty 1964, 139).

Very young babies' attempts to realise a harmony between intention and performance is less successful than that of older children and adults, often leading to frustration and anger. The synchronicity between purpose and execution is a process in which the playpen, in this instance, plays a part. Due to Emily's more mature mastery over her own body she was standing and playing with a toy that had been placed in the playpen. Kane, on the other hand used the playpen to pull himself up into a standing position, plopped back down, pulled himself up again and then released his grasp on the playpen with one hand to reach out toward the activity centre that Emily was playing with. Unable to reach it while still holding

on, he sat back down. After another moment, with the assistance of the playpen, Kane pulled himself up to stand again.



Figure 2.7 Kane Using Playpen to Stand

In performing these actions, Kane's body was learning to stand and the playpen which initially existed in an alterity relation to him, was already becoming an aspect of his embodiment and receding into the background of his awareness (illustrated by his releasing his grasp on the side with one hand), thus becoming an integral part of his 'I can'. Shortly we will explore how as children's corporeality matures, just like a cot, the playpen returns to become 'other' again as it loses its significance as a container and enters into a different kind of embodiment relation.

Once Kane was securely on his feet, although he was still holding on to the side of the playpen, he explored the side of the pen with his mouth, consistent with Merleau-Ponty's assertion that infants' bodies are buccal bodies (Merleau-Ponty 1964 (B)). Buccality is part of very young children's body-world relation and is integral in testing the boundaries of both body and world. Babies primarily explore the world with their mouths whereas adults tend to *primarily* explore the world with their hands and eyes. Nonetheless, we should remain mindful that all of us experience as a plenary *gestalt*, using all of our senses to experience despite adult tendencies to be ocularcentric. As well as exploring the playpen with his mouth, Kane also examined the texture of his containment, exploring the vertical bars, and indents and shapes set into the walls with his fingers.

He stood for a while, which let him to see over the side, broadening his perceptual horizons, and allowing him to watch Jacob who was looking at a book, something Kane was very familiar with, since his mother read to the children often. He chewed again on the side, exploring its texture with his mouth, then released one hand and tried again to reach the activity centre. Emily used the side of the playpen too, but since she was already able to stand unaided, she used it to enable her to walk around its perimeter, something she would have been unable to do without the playpen to help maintain her balance.

While still holding on with one hand, Kane bent his knees and crouched down to touch something on the floor, stood, crouched to touch the activity centre, stood, reached out to hold the playpen with two hands, let go, crouched and stood again. At this point he smiled in my direction then crouched. He looked through the gaps in the playpen as if to check that I was watching, crouched lower, rose up a little to look at me, then crouched lower again. His pleasure was obvious by the broad smile on his face. The playpen affords a see and not-see experience and functions to facilitate a game of 'peek-a-boo' which is one of very young children's first jokes. Sutton-Smith (2008) defines jokes as a type of play which displays a representational freedom to transform the world allowing children to overcome the 'stuffy and bossy adult word they encounter', sustaining and generating pleasure in the mundanity and even danger of everyday life (Sutton-Smith 2008, 94)

While Molly, who was eleven months old was not interested in the playpen at all, something about the playpen apparently appealed to nearly thirty two month old Jacob. While the twins sat in the playpen, Jacob's more mature embodiment afforded him different body-environment limits so he climbed over the wall and into the playpen with the younger children. In this instance, therefore, the playpen ceases to be a container and becomes a permeable climbing apparatus. Kneeling and holding onto to the side with one hand, he hit the shapes repeatedly with his fist until they came out and clattered onto the ceramic tile floor. After a short while he put one leg through the hole where one of the shapes had been, steadying himself by holding on to the top of the playpen. He then climbed up to sit on the side of the playpen in a corner as shown in figure 2.9. What was a flexible,

facilitating enclosure for the twins became a climbing frame for Jacob whose corporeality was sufficiently developed to allow him to experience the playpen as an object to be traversed.



Figure 2.8 Permeable Climbing Apparatus

Jacob's interaction with the playpen as well as the previously mentioned 'keep-in' 'keep-out' functionality of the playpen for parents, reinforce the distinction between Norman's functional understanding and Gibson's relational notion of affordances. It illustrates that regardless of affordances in Norman's sense, which should signal what a device is meant to be used for, the device affords a number of unintentional uses to very young children's indiscriminate experiencing and fragmentary corporeality that has not yet learnt the culturally appropriate way to use, in this instance, a playpen. It is for this reason that both Norman's and Gibson's understandings of affordances are useful to this research in different ways: Gibson's because it takes account of the flexible and dynamic relationality between affordances and corporeality, and Norman's because it allows us to access some of the rationale which informs the design and manufacture of objects made specifically for very young children.

With seven month old twins, a three and a half year old and a four and a half year old, I asked Emma if she had a playpen. Her response was as follows:

Emma: No. I would like to but I'm starting to think it's probably already a little bit too late. I think you have to have them in it and used to it before they get

mobile. But I've got a friend who's going to give me one hopefully in the next week... I think I'm going to have to 'cause they're going to start grabbing each other and pulling people's hair and grabbing each other's eyes...(excerpt from interview with Emma 1/7/2005)

The foregoing excerpt captures the inescapable ambiguity, and her own ambivalence to containing children, and hence the ideotechnic meaning of containment technologies. Emma's reluctance to use a playpen despite a possible need for it has an ideotechnic dimension that says something about Emma, and more particularly her understanding of the affordances of playpens as obstructions, constraining exploration and development. That is, Emma preferred her children to explore their environment encumbered only by their own immature embodiment. Her reluctance to contain her children is encapsulated in the following response when I asked her if she had used a playpen for the older children:

Emma: I didn't agree with them for my first baby. (Excerpt from interview with Emma 1/7/2005)

She did however concede that having the four children had changed her ideas about playpens:

Emma: I think they make a lot of sense because you can't have a shower without worrying, you know just stuff like that. I'm doing things differently. (Excerpt from interview with Emma 1/7/2005)

Linda and Philip too, offered an insight into their attitudes to childrearing and containment generally, and particularly, playpens:

Philip: She didn't dig it that much at all to start with and...

Linda: You put her in there and she would just scream

Philip: It almost got to the point where we could have used it as a time out thing, because she just didn't dig it you know, 'that's it you're going to jail for five minutes' (excerpt from interview with Linda and Philip 17/7/2005)

Likening a playpen to a jail not only gives us an insight into Philip's understanding of the type of mediating technologies that playpens are, but is also reminiscent of cots, which have multiple affordances including use as places of isolation and boredom.

In the interview Emma suggests, on the one hand, that children need to learn the habits of containment before they are able to go beyond it, yet on the other, she points out that the more mobile they become the more they need to be contained, to protect themselves as well as others. Emma's position resonates with Christine's statement which further implies that playpens oscillate between being 'keep in' and 'keep out' spaces:

Christine: I wanted to but because Molly started crawling so young as soon as she started crawling I thought "oh well, I've probably missed the boat" 'cause I don't know that she'd be happy to be stuck in a playpen now that she's so mobile and used to, you know, being able to crawl wherever she likes. (excerpt from interview with Christine and Steve 15/7/2005)

Despite this assertion, Christine and Steve continue to use the playpen to place around a heater to prevent the children from burning themselves. Linda and Philip made a similar point about the irony of constraining children in playpens, suggesting that past a certain point, presumably once they are mobile, the constraint ceases to be a viable option. They described Cassie's reactions to her containment as follows:

Linda: We don't have it anymore I've given it to [someone] she's got a little baby but um yeah, no, she didn't dig it. As soon as she learnt that 'hey, this is like, obstructing me from being able to roam the house' yeah, she'd just stand at the side and scream. (excerpt from interview Linda and Philip 17/7/2005)

Like cots, or baby carriers, playpens allow for flexible orientations, gestures and postures commensurate with children's developing corporeality and their inclination towards them. While in many ways they impose a point of view and delimit what children can and cannot experience, any constraints or enablements are not fixed for all time but are constantly evolving with the child's maturing corporeality. These container technologies nonetheless constitute and are constituted by a textured foundation of mouthing, feeling, seeing and hearing which informs children's acquisition of habits of containment, which forms the basis of their understanding of the constraints and enablements of containment in the life that follows. As I will discuss in the upcoming sections, other significant microenvironments, such as highchairs, walkers, play stations and mobile microenvironments like strollers and baby capsules offer other instances of the ways in which technologies mediate very young children's existence.

## ***Highchairs: Anticipation, Waiting and Arrival***

Highchairs offer another example of facilitating microenvironments which children experience very early in life. Like cots and playpens, one of their primary functions is to hold children in a secure environment to protect them from harm. Yet highchairs have specific characteristics which render them particularly salient as anticipatory, waiting and arrival spaces. Highchairs are designed specifically to afford feeding, yet they also afford entertainment, as surfaces that hold books, toys, and an array of other feeding, playing and entertainment tools. They also afford social interaction, containment and punishment while reinforcing the dialectic of risk and safety as children learn how to behave at ‘eating’ times as well as times of waiting, anticipation and patience.

Waiting is often imbued with a sense of nothingness similar to some conceptions of space, yet as David Bissell (2007) argues, such a notion comes primarily from a productivist discursive position (Bissell 2007, 278). This productivist position holds that time spent waiting is lost production time, or time which should in some way be spent or filled with some sort of activity. Bissell seeks instead to ‘open up and animate the event of waiting by tracing a path through the activities of the active and engaged body-in-waiting’ (278). In doing so he tells us that:

This more lively approach that apprehends the animate potentiality of bodily capabilities considers the experience and implications of both corporeal engagement and withdrawal in these places. Through some of the affective resonances brought about through the event of waiting as both active and intentional, such as impatience, anger, aggression, and cessation, such as tiredness, fatigue and hunger, it turns out that the event of waiting is not the immobile being-in-the-world that it first appeared. (Bissell 2007, 294-295)

Rather than a period of stasis, Bissell emphasises that the embodied experience of waiting is a ‘a variegated affective complex where experience folds through and emerges from a multitude of different planes’ (Bissell 2007, 277) and that urgency and delay are intertwined with activity and acquiescence in waiting. The experience of waiting as an event in-and-of-itself, is imbricated with patience and impatience, and is mediated by the nature of the event-to-come (279, 289). This is readily recognisable in infants and toddlers in highchairs who show signs of agitation and impatience when the event-to-come is particularly enticing, like

food or a treat, and the longer it takes to arrive, the more agitation is evident. If, however they are not particularly excited about the event-to-come they may acquiesce and agitation may not manifest. As Bissell suggests, therefore, we should recall that as embodied beings we are all actively perceiving and experiencing even in periods of relative inactivity.

Highchair inhabitation is a powerful example of the ‘body-in-waiting’ which is always-already embodied and interwoven with periods of activity and inactivity: of patience and impatience, of agitation and acquiescence (Bissell 2007, 277). On one occasion that I visited, Seb had been placed in his highchair, with a bottle and some food, in front of the television. After some time sitting quietly, he complained vehemently and pointedly about being there. He changed position many times, threw things onto the floor, then pushed against the table. He squirmed for a while then twisted sideways in the chair and vocalised his complaint; a vocalization; which while not being language as it is usually understood, was unmistakable as ‘I want to get out’. As soon as Kate undid the safety belt Seb stood up, turned around to face her and then extended his arms towards her to be picked up. Seb’s highchair dwelling was habitually a waiting, anticipatory and arrival space but once the event was realised the waiting experience shifted from acquiescence to impatience. Seb’s inhabitation of his highchair also illuminates the incorporation of highchairs into socio-equipmental-environments. Those things with which we repeatedly interact form an integral part of our intentional agency. As Kate was a single working mother, part of her daily routine was to sit Seb in his high chair with a bottle and vegemite toast, turning the television on to one of his favourite shows to allow her to feel secure that he would be safe (and quiet) long enough for her to get ready for work. This represents an early turning or orientational response to screens, which later becomes an habitual expectation of relevance as will be discussed in more detail in the upcoming chapters on television, mobile phones and tablets.

We construct our specific understandings of the world from our bodily location and our potential for agency, and infants like adults, experience and gather experiences according to the point in time and space they inhabit. The highchair dweller’s experience affords a perspective which floor dwelling does not; a



perspective ‘as if’ they were adults, that is, from a higher point of view—they can sit at table height with others. Although this higher perspective may be said to facilitate an illusion of being more grown up, it is nevertheless a highly regulated space commensurate with very young children’s need to be held securely in place. To realise these technomic and sociotechnic functions of highchairs, contemporary high chairs have a seatbelt which comes over the child’s shoulders, and fastens in front of their abdomen. This facilitates very young children’s emplacement in high chairs with some degree of assurance that they will not be able to fall or get out of the high chair. Many high chairs also have a fabric strap which originates under the child’s bottom, passing up between their legs to attach to the seat belt. This is designed to curtail very young children’s exploratory experiences and as such enters into an embodied baby-technology-world relation. The seat belt is intended to stop babies from sliding out underneath the table and falling onto the floor, an activity which can become a game as they get older. Again however, while all of these features are ostensibly safety features, consistent with the notion of facilitating microenvironments, their inclusion mediates very young children’s being-in-the-world in medium and historically specific ways, constraining and enabling orientation, gestures and posture while simultaneously being embedded in discourses surrounding the risk to, and potential of, very young children.

The seat of contemporary highchairs is a hard moulded plastic shell, extending from above a small child’s head down their back, and curves around under the baby’s bottom and upper legs, culminating in a footrest at the bottom. This shell also wraps around from side to side to encase even the smallest child, enabling sitting prior to the child’s capacity to sit unaided. The removable plastic padding further enfolds the child’s body, affording frontal, upright sitting, or appropriate eating-at-the-table body habits.



Figure 2.9 Seb in High Chair

As can be seen in figure 2.9, the table top on Seb's high chair crosses at chest/mid-upper arm height, imposing gestural imperatives and constraints, meaning that he needed to raise his arms from the shoulder to reach the things on the table top. Seb's upper body movement is thus restricted by the table and the wrap-around-ness of the hard shell of plastic and the thick padding that constitutes the chair. To take things from the table and put them into his mouth, therefore, required the acquisition of body habits specific to his highchair dwelling. Seb's highchair not only had a safety belt but also a bar from the table top to the seat to prevent him from sliding down and out from under the table. This kept his legs apart at all times, but he was able to bend one of his legs up to the side and wiggle his bottom sideways, enabling him to turn partially side-on in the chair. Apart from mediating children's orientation, postures and gestures, highchair dwelling facilitates a particular spatial perspective which their stature does not—the perspective available to floor dwellers is distinct from that of highchair dwelling. When children are floor dwelling too, impediments to their line of sight, such as chairs, tables and other furniture, delimit what they can and cannot see. This is largely overcome with the aid of a highchair. In a highchair, therefore, children's points of view on the world are higher and more expansive, extending the child's visual possibilities. Vision, however, is either enabled or constrained in accord with the direction in which the highchair is placed.

Highchairs can be incorporated into table-sitting, gradually introducing children to habits of table-sitting and eating, affording a gradual integration into networks of social interaction. Hence, while highchair dwelling affords—in Norman's terms (Norman 1990)—cultivation of eating-at-the-table postures, gestures and orientation, Seb's actions within it are indicative of the flexibility of embodied actions which highchairs afford young children in concert with their own maturing corporeality.

Since highchairs avail children of spatial perspectives which may not necessarily be available to them otherwise, they enter into an embodied relation constituting and constituted by a child-highchair complex contiguous with certain postural, gestural and orientational imperatives, through which the child experiences their environment; including containment. The specific point of view afforded in highchair dwelling, however, is not a fixed once-and-for-all position, but a dynamic process of becoming. With the passage of time and increased control over their own motility within spaces of containment, the world is an agentic environment that changes in relation to the child's own flexible corporeality. Movement in space has as its necessary correlate movement in time. Bodies and bodily experience is consequently always becoming-in-time. In highchairs, waiting for food or entertainment, very young children's becoming-in-time is habitually filled with realised and unrealised potential, entering into a schema of past-present-future, in reference to previous experiences of waiting, anticipation, arrival and containment. Through the inhabitation of highchairs, very young children come to understand that highchairs and chairs more generally are spaces of waiting and anticipation of something to come. In the transition from being fed to self-feeding, highchairs not only build and reinforce habits of waiting and anticipation but they are also spaces of allowable and containable mess. Furthermore, highchair dwelling facilitates and constrains particular experiences as a regulated anticipatory space which enters into the routines of daily life; technologically texturing the world (Ihde 1990).

Booster seats are an adaptation of highchairs for older children and their use is significant of children's developing corporeality and the acquisition of habits of eating at the table. Unlike Seb's highchair, Cassie's booster seat, consistent with

her more mature corporeality, does not so strictly demand frontal orientation or an upright seated posture despite being intended to be used in that way. In the design of booster seats, there rests an assumption that children have already learned habits of sitting and waiting.



Figure 2.10 Booster Sitting

Booster seats do not have the character of wrap-aroundness that highchairs do and consequently do not delimit gestural agency as strictly as highchairs, as can be seen in figure 2.10. As such, while being intended for frontal orientation and an upright seated posture, they do not so strictly demand either. In response to children's developing mastery over their own bodily movements and comportment, booster seats allow for more flexible seating positions by raising the height at which children may sit at the table, 'as if' they are adults, while compensating for their diminutive stature to further encourage transitional habits of table sitting. This is particularly the case with booster seats, since adaptations can be made, as they can with some other highchairs, to allow children to get into and out of them in response to their maturing embodiment and growing independence. Cassie's seat was at the dining table on a wooden chair that was much wider than the booster. As such she was able to climb from the floor to her seat, put the tray on, in anticipation of the chocolate cake she was about to receive.

Because infant's and toddler's bodies are always-already involved within the world within a specific time and space, they are precisely involved within particular cultural practices and knowledges, hence their containment is

embroiled in discourses surrounding what a baby or toddler is, and should be, in the specific society in which they are raised. As we have already seen, perhaps the dominant discourse surrounding very young children is one that values children and seeks to protect them from harm. As such, just as manufacturers of cots and playpens are increasingly aware of safety, safety is an important component of contemporary highchair production and marketing in response to changing perceptions of infancy and toddlerhood, the ways in which the children we love should be treated, and to avoid litigation.

While booster seats such as that shown figure 2.10 are undoubtedly still holding environments, I would suggest that their primary function is not necessarily to protect the child from physical risk. Boosters facilitate social engagement enabling children to interact with others ‘as-if’ they were adults. Booster seats also accommodate the child’s emerging mobility and understanding of where they are in relation to other people and objects. Unlike a highchair, booster seats would only be used at the table. While the booster still has a table which may prevent some accidents, it no longer has shoulder straps which hold the child against the back of the chair. This affords more flexible orientations, gestures and postures than does the highchair. The table top, which may or may not be used in conjunction with the booster seat, as can be seen in figure 2.10, crosses the child much lower down on their body, facilitating more flexibility of movement consistent with a child’s growing understanding of habits of table sitting. In Cassie’s case the tray crosses at hip height allowing her to lean forward across it to reach the table, but it also allows her to eat and gesture unencumbered in other ways, furthering integrating her into networks of social interaction.

In this section I have attempted to demonstrate that highchairs exist along a spectrum of technologies of containment and act as technologically enhanced facilitating microenvironments, which hold infants and toddlers in spaces which are, at least partly, designed to protect them from physical risk (Winnicott 1960, 49). As well as constraining movement through design and manufacture, they are spaces of almost constant supervision in very early childhood. But, as we have seen, these facilitating holding spaces mediate infants’ and toddlers’ experiences in and of the world in a number of medium specific ways, effectively enabling

and constraining certain possibilities of being, variably and dynamically, according to the purposes of containment.

### ***Walkers: Not-Quite Spaces***

Another example reveals the medium specificity of facilitating microenvironments is the mobile holding space of the baby walker. Walkers are not high, like highchairs, and are specifically designed to allow little feet to come in contact with the ground as can be seen in figure 2.11. Obviously very young, or short, children would not be able to reach the ground at which point the walker then becomes a sitter, or play station. Unlike the highchair, walkers afford children autonomous movement, allowing the baby to literally aim at the world through the baby-walker-complex.



Figure 2.11 – Baby Walker (Babees Clothing and Toys)

Babies' efforts are amplified in a walker which may at first surprise them, but through which they soon learn to surprise their world—ask anyone who has had their ankles skinned by a careering baby walker. The affordance of the baby-walker-complex is, however, contingent on the affordances of the surface upon which they are being used. The baby-walker-complex amplifies and exceeds some babies' capabilities to propel themselves hence there are risks in situations of uneven ground, loose surfaces or stairs in that the walker can tip over or collapse. When I asked Linda and Philip if Cassie had had a walker, they implied in the following excerpt, that their space was not as suitable as at Linda's parents' house:

Linda: She did at my parents' house.

Philip: We put it at her parents' house 'cause she didn't have the room here to get around. It's too closed whereas they've got a bit more of an open space

Linda: We used to use it outside at their place 'cause they've got a good area to... (excerpt from interview with Linda and Philip 17/7/2005)

Just as the texture of particular surfaces speaks to the mutability of the child-walker affordance relation, so do the dimensions of the space in which they are used, establishing a dynamic child-object-environment relation. Walkers are a useful alternative to both play pens and highchairs for more active babies, who are always oriented to movement, which is facilitated by the walker, allowing them to push the limits of their embodiment. As such, the baby-walker complex enters into the dynamic organization of the home, necessitating the inclusion of gates across stairs and the removal of obstructions and other objects which may put the very young child at risk or which may be put at risk by the augmented capacity to move afforded in baby-walker relations.

Unlike unaided walking, the walker places a barrier between children and the things which interest them, and although walkers facilitate proximity seeking, they only do so up to a point. The base of the walker which extends beyond the body, as can be seen in figure 2.11, bumps up against things and the body of the walker places a physical barrier which very young children cannot reach past. Thus they provide the child with regulated freedom of movement while creating a not-quite effect. That is, the walker affords mobility and reach, but in many instances the babies' who inhabit them, can 'not-quite' reach many of the things which may be of interest to them.

Through habitual use, even very young children's bodies learn that by adjusting their orientations, postures and gestures, they can move from one place to another, allowing them with increasing confidence to aim at the world through the walker. In doing so, walkers are gradually incorporated into the child's corporeal schema, which extends his or her possibilities for action in the larger environment of say, the lounge room. As such, the walker also functions as a hyper-vehicular-corporeal device which amplifies the child's corporeality often beyond his or her

ability to control, which may unsettle the walker's role as a safe holding environment.

Prams and strollers, while having been around for a long time, are another example of a technologically enhanced mode of hyper-mobility, in which infants and toddlers mobility exceeds their corporeal capacities to traverse space. The terms 'pram' and 'stroller' both derive from the term 'perambulation' meaning walking about, or strolling. Unlike a walker which facilitates infants' self-directed mobility, perambulation relies on a carer to propel the vehicle and they are often used as a to settle very young children to sleep. The pram or stroller, the child and the carer enter into an embodiment relationship with the pram or stroller constituting and constituted by a carer-pram-baby complex. Such mobility is an extension of the maternal provision, in that it facilitates a moving together.

### ***Containers Within Containers***

The variety of containers within containers which children may potentially inhabit, have burgeoned. Baby capsules, child car seats and booster seats have all been designed to hold babies and young children in place, in size specific ways, in case of a motor vehicle accident. In this section I will explore how baby capsules and child car seats have emerged from discourses of risk and vulnerability which speak again to our understanding of the value of children in contemporary Western societies. Parental provisions are not experientially neutral; parents (and others) enact cultural constructions of children and childhood in all of their fears for, expectations of and dealings with their infants and toddlers and the equipmental assortment of child technologies (Calvert 1998). Consequently, the notion of a space which protects infants, toddlers and indeed older children, from physical and/or psychological harm, while it has a long history, rests on our understandings of what an infant or toddler is and how they should be cared for. This is reflected in a current propensity to place stickers on cars which proclaim 'baby on board' to remind us to take extra care while we are driving near them, reinforcing the notion that children are especially valued in our society, and that their safety is arguably more important than the safety of other people.



Due to an increasing awareness of safety issues, which has been enacted in Australian law since 1978 (Australian Competition and Consumer Commission, 2013) children are increasingly encapsulated in the early months of their lives to facilitate safe travel. Baby capsules, such as the one shown in figure 2.12 are like plastic pods, usually with a faux sheep skin liner. They have a wide strap which holds the babies torso firmly in place while not inhibiting, at least not too much, the child's ability to move his or her arms and legs. In doing so the capsule affords the cocooning effect of holding, and facilitates a sleep state.



Figure 2.12 Baby Capsule: Source: (McIvor 2006)

Due to the shape of the capsule and the way that it is mounted in the car the baby's orientation is usually towards the roof of the car at the back. Facing backwards and moving forward mediates babies' visual experiences as well as potentially confounding their experience of movement; of braking and accelerating as well as the up and down movement on uneven surfaces. The capsule dweller's point of view is constrained by the high sides as well as its containment within the containment the vehicle. As babies experience movement through the double containment of capsule and car, it enters into an embodiment relation incorporating baby, capsule and car as an integral part of the baby's experiencing.

Even more so than the highchair dweller, the capsule dweller is a body-in-waiting for either sleep or arrival, and often containment in another form. Many parents attach rattles or other playthings to capsules in order for the child to have some distraction from the monotony of their visual field, allowing them to enter into the socio-equipmental environment of containment within containment, and introducing babies to, or reinforcing the child's gradually growing understanding of habits of waiting. The baby-capsule complex is not necessarily always a baby-capsule-car complex, as the baby-capsule complex is able to be lifted from the car and situated in other locations, such as the floor or a shopping trolley, further

broadening the incorporation of capsules into the socio-equipmental environment. Many supermarket trolleys now also include a capsule on the top so that the baby may be moved from capsule to capsule and then transported around on top of the groceries, within the mothers' reach and available to her surveillance, but also creating a type of baby-and-capsule agency or mobile containment where the child and capsule move as one.

Car seats are another example of safe containers within containers. Like highchairs, car seats generally hold infants and toddlers in an upright posture with a forward facing orientation, although they can also tilt backwards to facilitate sleeping. Like highchairs, contemporary car seats have high padded sides to ensure that even sleeping toddlers are able to maintain a relatively upright position, with only minimal capacity for their heads to droop. Also, like high chairs, the thick cushiony surrounds and safety belt, constrict children's capacity to move around into other positions, encouraging culturally embedded habits of car-sitting. Car seats and capsules within cars, like other containment technologies require the environment to flexibly accommodate them just as they must flexibly accommodate the environment. The size and rigidity of many of these containers as well as the regulations in relation to fastening prescribes how and where they are mounted, within cars, reconfiguring spatial relations within the vehicle.

Despite emerging from discourses of safety which dictate design, materials and fixings, child car seats, like highchairs, are potentially risky spaces. Reporting on the cervical injuries suffered by children in motor vehicle accidents Lynne Bilston and Julie Brown (2005), note that:

Many of the reported cases of cervical injury in children restrained in forward facing restraints are known to have occurred in conjunction with restraint misuse (Fuchs et al. 1989, Graham, Kittredge, and Stuemky 1992, Henderson 1994) (Stalnaker 1993, Weber, Dalmoras, and Hendrick 1993) (Fuchs et al., 1989; Graham et al., 1992; Henderson, 1994; Stalnaker, 1993; Weber et al., 1993), however, a number of reports from European and North American studies suggest these injuries also occur in correctly worn forward facing restraints (Huelke et al. 1992, Janssen et al. 1993, Lowne, Gloyns, and Roy 1987, Troisell and Tarriere 1993). (Bilston and Brown 2005, 9)

In my own experience, a dear friend who was two at the time suffered a severe spinal injury and ultimate paraplegia as a direct consequence of being restrained in a forward facing child restraint. Furthermore, the safety of car seats may be compromised once the child learns how to undo the fastenings and to climb out of the restraint rendering these container technologies. Facilitating microenvironments therefore are not only as safe, but also potentially risky spaces.

## ***Conclusion***

Infants' and toddlers' perceptual, affective and intellectual grasp of the world is initially facilitated by the carer and the milieu to which they introduce the baby (Wynn 1997, 262). Taylor argues that time, space and movement are organizing principles of perception since our perception in time, and in and across spaces is the only way that we can perceive as embodied beings who exist, in fact, in particular times and places (Taylor 1990). Enlisting technologies to partition and manage time and space, then, cannot help but mediate children's experiences within-the-world.

For Winnicott (1960), half of the parent-infant relationship is about the maternal provision: 'that is to say the qualities and changes in the mother that meet the specific and developing needs of the infant towards whom she orients' (Winnicott 1960, 42). The other half has to do with the infant's journey from absolute dependence towards independence, a state which is never completely reached. Rather than imply two relatively distinct fields of activity, I would consider maturation as relational, meaning that it happens in relation to tools and technologies and consequently they must be accounted for as part of our human-world experiencing, shaping the ways we can be. Since we all exist in a primary relation to tools, and to experience our being-in-the world is to experience our being in a world with technologies, our lives are technologically textured down to the minutiae of our everyday routines and practices (Ihde 1990).

In this chapter, therefore, I have sought to situate the facilitating environment of maternal care *in relation to* children's developing corporeal schema to suggest that the facilitating environment both is, and exceeds, the maternal provision. I

have also sought to illustrate ways in which the microenvironments that children inhabit afford particular relations between bodies and environments, both enabling and constraining certain ways of being-in-the-world. The interplay between various micro and macro environments, both enable and constrain certain perceptual possibilities specific to the shape and content of the facilitating environments, mediating children's experiences within the world. They thereby privilege certain ways of being over others while simultaneously establishing a foundational ontology (fundamental way of being-in-the-world) which is overlain with other experiences in a perpetual process of becoming.

The container technologies dealt with in this chapter safe occupy an ambiguous place in our understanding of how they relate to infants' and toddlers' development and in relation to childrearing practices. Cots, highchairs, playpens and mobile containment technologies facilitate holding which seeks to protect babies and toddlers from harm, but the safety of the containment is also precarious. They can enable hyper-mobility for infants and toddlers, as well as constraining and enabling children's postures, gestures and orientation, facilitating and delimiting very young children's ability to act within them, and towards their broader socio-equipmental environment. Yet we should recall that facilitating microenvironments are an integral part of our being-in-the-world or the 'situational constitution of "worldhood" '(Acampora 1999). They flesh out our world and our experiences within it. The 'ontology of residence' or the nature of inhabitation recognizes that we cultivate habits of being (*habitus*) which gradually allow us to come to feel at home in our socio-equipmental environments. The type of facilitating environments which infants and toddlers children come to inhabit, are experienced in terms of an ever evolving expectation of what it is like to feel at home in our containment.

Facilitating microenvironments and their boundaries constitute some of the earliest materials from which we come to understand ourselves as discrete entities who gradually but persistently move from undifferentiated activity to intentional agency (from experiencing the world on the sensori-motor-affective-level, to becoming effective actors within the world). As our corporeal schemas develop the dehiscence between carer and child widens allowing us to take more of the

world into ourselves, synthesizing perception and experience and informing our perpetual process of maturation. It is possible on this basis to suggest, as Sofia (1984) does, that *all* technologies are reproductive (Sofia 1984) of particular medium, historically and culturally specific ways of being-in-the-world. By placing culturally embedded material, yet dynamic constraints and enablements around children's experiencing, containment both delimits and expands embodied agency and perspective.

Since we come to know the world through repeated perception, the consistency of experience and perception in early life enables children to feel at home in their environment—to gradually come to know their way around and to feel secure that these things are somewhat constant in their lives (Lally 2002). Facilitating microenvironmental mediums like cots, playpens, highchairs and walkers establish a dynamic array of affordances within very young children's socio-equipmental environments. Facilitating microenvironments are intrinsic to a foundational and relational ontology which adjusts to children's emerging corporeality and understanding of themselves as discrete beings. They enable children to grasp certain aspects of their world, and are a part of the child's world in the only way it may be for them: they are the context of their lives. Hence facilitating microenvironments provide children with a foundational ontology which will gradually be complexified and overlain with layers of increasing degrees of mediation which will shape the child's point of view on the world. It is not possible to say, however, that the effects of containment are universal or straightforward, as container technologies afford a spectrum of experiences contingent upon the cultural and situational context in which they are used, and the child's corporeality.

In the next chapter I will examine how children move from dependence to relative independence and from introception to object relations. As children mature, the space between mother and baby gradually widens to enable the child to experience more and more of their socio-equipmental environment. In doing so, the child increasingly comes to understand itself as a discrete being which exists simultaneously in a disintegrated and integrated relationship with the world and the other things within it, in an ongoing process of perception and discovery.

While I have concentrated in this chapter on the notion of being-in-the-world, in the next chapter I will broaden this to what I have termed being-with-in-the-world. I will thus return to Merleau-Ponty's concept of flesh of the world which is crucial to understanding chiasmic intertwining, a concept which facilitates a deeper understanding of our primordial intersubjectivity as well as our primary relation with the materiality of the objects and other people in our socio-equipmental environments, as an integral part of the maturation process.

### *Chapter 3*

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## *Primary Objects and Primal Intersubjectivity*





## *Primary Objects and Primal Intersubjectivity*

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Within the physical space of the dwelling, the material home is constructed through the assembly and configuration of objects, such as furniture, decorative items and technologies. These organizations of objects are not static, but interact dynamically with those who inhabit them, as the material substrate to their patterns of everyday life. (Lally 2002, 10)

Indeed, things are perhaps the most faithful witness of all, and in their fidelity to us they function as extensions of ourselves, reflections and echoes of who we are, were, and will become. Those things in your room, for example, those simple, ordinary things mirror who and what you are, and situated in that room they give a shape to its space, they form it into a place, they outline a world...the loss of such things, of those things which bear witness to our living, is always something of a tragedy, for in losing them we lose something of ourselves, we lose something of our world...things do matter in our lives, they do have their place...they are the places around which aspects of our world are gathered together, held there, and preserved...Staying in their place, they give us our place, and without such things in our lives we would have no place at all. (Romanyshyn 1989, 193-4)

As we move from facilitating microenvironments to primary objects, in the process of maturation as in this thesis, the foregoing quotes remind us of the integral role that objects play in configuring our ‘patterns of everyday life’ and interacting with our very being; becoming inseparable from who and what we fundamentally are. Consequently this chapter moves from the ontological and perceptual significance of spaces to that of primary objects. By examining primary objects and primal intersubjectivity, we here lay the foundations on which the subsequent chapters on toys, television and new media will rest. In the introduction to this thesis I suggested that our current understandings of the term ‘media’ as well as our propensity to study media content sanctions us to think too readily that media have little or no significance in the lives of infants and toddlers. Models which rely on textual or linguistic analysis do not sufficiently allow for perception as our primary relation with the world: the background or context from which language emerges. Thus, they take little or no account of the ways in which media, by definition, mediate our existence by virtue of our embodied engagement with them. I proposed therefore, that by starting off from a point which recognises that all technologies are mediating technologies, we might come to an understanding of the multitude of ways in which media intersect with very young children’s corporeality: their very being-in-the-world.

In Chapter One I offered an outline of the dominant theoretical perspectives which are being used to develop this thesis: Merleau-Ponty's phenomenology of embodied perception, with particular emphasis on being-in-the-world, reversibility, *écart* and incorporation; Winnicott's psychoanalytic theory, particularly the concepts of the facilitating environment and transitional objects; Ihde's post-phenomenology of technology including his definition of technology, his understanding of human-technology relations and the mediating capacity of all material objects; the study of material culture; and the concept of affordances as relational and contingent as forwarded by Gibson (1982) and Norman (1990).

In Chapter Two I argued that the facilitating microenvironments which infants and toddlers occupy simultaneously enable and constrain particular embodied activity in concert with very young children's own emergent bodily capacities. Consequently I discussed that not only do spaces mediate infants' and toddlers' existence but that they do so in relation to the specific child's developing corporeality and cultural habits of being. While Chapter Two dealt with facilitating, holding spaces, which are nested within Ihde's lifeworlds (1990), the upcoming chapter will shift focus from being-in places, to being-with human and non-human others in the world. This will be done by incorporating the phenomenological concept of chiasmic intertwining with objects as part of the process of maturation. As such this chapter will consider the development of object relations: being-with-in-the-world, or being in the world along with other people and things, and how this both mediates infants' and toddlers' perceptions and experiences of the world and constitutes a primary relational ontology.

I have chosen to hyphenate with-in and being-with-in as a means of signifying the specific sense in which I use the terms. Being-with-in-the-world, as I have employed it, takes its lead from the phenomenological concept of being-in-the-world, yet extends this to take further account of the primordial, intersubjective relationship we have with the human and non-human others who coexist in the world with us. This notion is supported by Merleau-Ponty's statement that, 'whenever I try to understand myself the whole fabric of the perceptible world comes too, and with it come the others who are caught in it' (Merleau-Ponty 1964, 15). 'With-in', thus should not only be construed as contained within, although that

is an important component of being-with-in. As it is used in this context, I intend that it should be taken both as being with and being in: being with-in. It is meant to signify coexistence, or mutual involvement with the world and its others, and that with repeated perception and interaction, each human or object becomes imbricated with the other. In order for this to become more apparent I will briefly reintroduce the concept of reversibility, and its attendant concepts of flesh of the world and the chiasm to suggest that we all incline towards those things that interest us (Ahmed 2010). With repetition, each human or object becomes imbricated with the other.

After elaborating on these concepts I will return to Winnicott's notion of the facilitating environment in more detail and the importance of the holding phase. I will then introduce his concepts of potential space and transitional objects to establish a continuity of mediating technologies. In appropriating these concepts, however, rather than relying on Winnicott's essentialist notions of the facilitating environment as the maternal provision, I will speak of the environmental provision of facilitating environments and how the two concepts link to object relations. Winnicott's view of dis-integration in the process of maturation will then be complemented by Merleau-Ponty's concept of *écart*. I will then synthesize these diverse, yet complementary concepts in an analysis of the first encounters infants have along the continuum of object relations as relations of divergence and similitude, of integration and disintegration, and dependence and independence. Consequently I will consider three primary objects; feeding bottles, pacifiers and clothing. This is to set the stage for an analysis of very young children's developing relationship with their environment and the things within it. The theory forwarded will be described with examples from my own experience, and from my interviews and observations.

### ***From Introception to Object Relations***

In this section, I will examine in detail the infantile transition from introception, which means sensitivity to stimuli originating inside of the body, to object relations which constitute and are constituted by babies' growing understanding of themselves as discrete entities in relation to objects. In early infancy, babies'

bodies experience the world, or a sense of space, through their mouths and respiratory system:

After that, other regions of the body intervene and come into prominence. All the regions linked to the functions of expression, for example, acquire an extreme importance in the months that follow. In waiting for the union that will arise between the data of external perception and those of introceptivity, the introceptive body functions as extroceptive. In another context, this is what psychoanalysts say about the origin of the child's experiences when they show, for example, that the child's relations to the mother's breast are his first relations with the world (sic). (Merleau-Ponty 1964b, 122)

The process is initially mediated chiefly by the infant's carers and what they provide for the baby. Consequently primary objects are those things which infants encounter early in life, as they are coming to understand themselves as discrete beings with-in what Acampora calls the particular worldhood of their world (Acampora 1999, 123). The child's world gradually expands as more experiences and skills accrue, and thus continue to develop through the child's growing inauguration into his or her socio-equipmental environment (Lally 2002, 28).

Lally comments that:

This personal evolution continues, until eventually the individual becomes independently capable of seeking out and appropriating novel experiences, activities and objects to the self. (Lally 2002, 27-28)

Early in their lives, infants experience the world introceptively, hence they live under the illusion of what Lally and Winnicott call omnipotence or invocation in that objects present without infants understanding of how or why (Lally, 2002: 27). Objects both appear and are called forth—invoked—by even very young children. For instance, a pacifier may appear at regular intervals or may be called forth by babies' cries. Omnipotence, therefore, is a problematic term which implies a certain egocentrism which cannot be sustained in the case of infants. The term omnipotence is thus contentious, in that a sense of ourselves as discrete entities is not primitive, but rather emerges as the affordances of facilitating environments intersect with children's maturation. Yet Winnicott's use of the term is not meant to imply a primal egocentrism; rather, he argues that while 'we have to say that the baby created the breast' we should also be aware that he or she 'could not have done so had not the mother come along with the breast just at that moment' (Winnicott 1980, 101). In the process of maturation Winnicott

argues that the gradual withdrawal of the maternal provision in concert with babies' developing corporeality, enables them to 'come at the world', facilitating an understanding of themselves in their separateness or as agents who can manipulate their environment. Winnicott's insistent reliance on the concepts of the maternal provision, the breast, and infantile development in terms of their withdrawal as an experience characterised by anxiety and lack are, however, problematic as these notions assume that only a mother may provide nurture, and that any divergence from breast feeding and mothering is inadequate. Moreover, the notion of infantile development as characterised by anxiety and lack, does not recognise the joy or discovery, nor the potential for diversity of experiences, where some children may actively strive to increase the distance between themselves and their caregiver. At this point, therefore, instead of referring to the maternal provision, I will refer to the environmental provision which includes, and yet exceeds, the maternal provision as it recognises the wider socio-equipmental environment.

The ultimate recognition of inner and outer, and self and other, emerges primarily from the affordances of the environmental provision. The distinction between internal and external, or between self and other, is generally consolidated in children by the time they are about six months of age (Dillon 1990a). Others, however, argue that it happens over a period from six to eighteen months of age (Weiss 1999, 11). Nonetheless the foundation and significance of the non-coincident other establishes an ongoing continuum of similarity and difference which gradually takes account of all human and non-human others that the child will encounter (Dillon 1990b).

Early in life material objects not only offer a consolatory presence which eases the transition from undifferentiated to differentiated experience, as Winnicott suggests, but also offer *experience* and exploration as Lally affirms:

The role of physical objects is crucial in the transition from total dependence to relative independence, in mediating the intermediate area between subjective experience and that which is objectively perceived. (Lally 2002, 28)

Lally's quote alerts us to the capacity of material objects to mediate infants' and toddlers' experience, and their transition from total dependence to relative independence, introception to object relations, and from undifferentiated, to differentiated experience. They also facilitate children's gradual introduction to their socio-equipmental environments. The above quote, thus, encapsulates the overarching theme of this section which examines the significance of material objects in mediating the process of maturation.

In the process of physical and cognitive development, infants gradually move from being entirely dependent negotiate the world with some autonomy. Yet it is important to recognise that we do not grow into isolation but rather come to understand ourselves in an interdependent relationship with our environments and the things within them (Winnicott 1988a, Lally 2002, 27). Object relations which coincide with infants' growing 'recognition of a true "not-me"', as both Winnicott and Merleau-Ponty suggest, are 'a matter of the intellect; [which] belongs to extreme sophistication and to the maturity of the individual' (Winnicott 1960, 38, Merleau-Ponty 1964b). Merleau-Ponty, nonetheless, offers an important adjunct to this by reminding us that intellect is anchored in our perception of external events and objects, and that the perception of external events is not merely a reflection, or the result of sorting out sense data, but a more profound *process* wherein we organize our experience (Merleau-Ponty 1964 (b), 98). Hence, it is neither 'a logical nor a predicative activity' but rather an 'actual "informing" [*Gestaltung*] of experience in the child' (Merleau-Ponty 1964 (b), 98). *Gestaltung*, which derives from the term *Gestalt* refers to a structuring of perception and experience into a whole which cannot be described solely in terms of its parts. Thus in this instance it refers to an ordering of experiences which facilitates a growing capacity to interpret those experiences in reference to past experiences and future possibilities: it is a move from the undifferentiated experience of very young infants to the differentiated experience which gradually emerges.

Merleau-Ponty notes that things such as intelligence, perception and imagination, that is, those things which are referred to as 'functions of cognition' in classical academic psychology, on closer examination lead us to the precognitive activity

of perception, a process facilitated by the child's own corporeal and social conditions (Merleau-Ponty 1964b, 99). More specifically, it is a reversible relational ontology of infants' and toddlers' intertwinings with the flesh-of-the-world in the transition from undifferentiated to differentiated experiencing in the process of maturation.

While inner or 'psychic reality' as Winnicott calls it, is residually personal or subjective, babies ultimately come to understand that 'there is a world that is external...that could be called actual' (Winnicott 1988b, 56-57). As Merleau-Ponty notes 'the internal characteristics of the subject always intervene in his way of establishing his relations with what is outside him (sic)' (Merleau-Ponty 1964b, 99). As Lally intimates:

We construct our place in the world through our interactions with a dynamic social, cultural and material environment, filled with technologies, mass media, mass-produced commodities, abstract objects such as knowledges, and other people. (Lally 2002, 8)

Virtually all human action is associated in some way with material objects, and the material culture which constitutes and is constituted by the particular objects in our perceptual field, establishes 'the context for our larger perceptions' (Ihde 1990, 18). Our ability to act in and on the world, as well as our openness to be acted upon within the world, is limited in some ways and amplified in others by the incorporation of tools or objects into our corporeal schemas. The corporeal schema specific to infants and toddlers is one in which their capability to perform physical tasks with or without conscious intervention is limited by their developing mastery of their immature embodiment and objects offer different affordances to immature bodies.

Infantile bodies are at first introceptive; or experienced primarily as bodily sensations of degrees of wellbeing, pleasure or displeasure (Merleau-Ponty 1964b, 121). That is, as Merleau-Ponty tells us, early in life infants are unable, at first, to relate external events to their bodily sensations (Merleau-Ponty 1964b, 121). The significance of material objects to infants' transition from total dependence to relative independence and their growing understanding of themselves as discrete beings allows us to understand the mediating capacity of

‘things’. It does not yet, however, facilitate our understanding of the complex ways in which media enter into very young children’s ways of being.

### ***Reversibility, chiasmic intertwinings, flesh-of-the-world and écart***

In this section the concepts of reversibility, chiasmic intertwinings, flesh-of-the-world and *écart* will be developed to argue that infants’ and toddlers’ bodies and mediating technologies fold over each other, making it implausible to consider media as something that exists ‘out there’ to either educate or corrupt very young children. Rather it is a fundamental part of what and how infants and toddlers are, and literally informs their understandings of themselves and the world.

Winnicott suggests that, ‘infancy is the period in which the capacity for gathering external factors into the area of the infant’s omnipotence is in the process of formation’ (Winnicott 1960, 37). Francine Wynn likewise notes that ‘infants have an amazing capacity to take in the world’ (Wynn 1997, 263). Infants are always and inevitably embodied, perceiving beings who inhabit the world within bodily space, and who come to understand their world from their particular ‘point of view’ with-in-the-world and in relation to a situational perceptual field (Merleau-Ponty 1962, 101). This is not, however, a one-way process where the child acts on or in the world and the world is acted upon. The world and the objects within it act on all of us as we act on them. As Merleau-Ponty clarifies:

Everything depends...upon the fact that our glances are not ‘acts of consciousness,’ each of which claims an invariable priority, but openings of our flesh which are immediately filled by the universal flesh of the world. All depends, in short, upon the fact that it is the lot of living bodies to close upon the world and become seeing, touching bodies which (since we could not possibly touch or see without being capable of touching or seeing ourselves) are *a fortiori* perceptible to themselves (Merleau-Ponty 1964, 16).

Objects touch us as we touch them, rendering any clear distinction between the *object* of perception and action, and the perceiving acting *subject* untenable. The use of the word ‘touch’ in this instance is particularly relevant when we reconsider that infants experience the world on the sensory-motor-affective level. ‘Touch’ should consequently be taken to mean the *act* of touching, as putting a



part of the body in contact with something, and in terms of having an emotional affect on something or somebody. That is, it should be considered as concerning us.

Reversibility then, the simultaneity of both perceiving and being perceived, is precisely what allows intersubjective relationships between humans. By introducing the concept of ‘flesh of the world,’ Merleau-Ponty suggests that the world or environment itself has a kind of embodiment and agency, the reliability and fluidity of which constitutes a schema of past-present-future informing how the child ‘structures his (sic) surroundings’ and consequently, meaningful action with-in-the-world (Merleau-Ponty 1964 (b), 98). ‘Flesh of the world’ is crucial to our understanding Merleau-Ponty’s reversibility thesis and further calls into question the notion of cause and effect in relation to very young children and the media. It allows us rather to consider our relationship with the world as reversible, and appreciates that the observing eye or touching hand is an integral part of the world it perceives; not something that stands apart from it. Flesh, as Wynn points out, is characterized by depth, and latency, or potential (Wynn 1997, 255). Although chiasmic relationships are reversible, reversibility is never complete (Wynn 1997, 257). The depth is dependent upon the spread of *écart*, rather like a rubber band which becomes thinner the more that it is stretched. Wynn (1997) comments, that ‘depth is a texture, a thickness, an inexhaustibility’ (255).

The seeing eye, touching hand, hearing ear, smelling nose, tasting mouth, ‘must...adjust its own “I can” to the demands of the [perceptual field] it interrogates’ (Dillon 1990b, 83). Flesh (*le chair*), does not refer to or describe actual bodies or objects *per sé*, but is, ‘a mass noun that is similar to the term Being...It is a primal element out of which is born both self and world’ (Wynn 1997, 255). Flesh, therefore, is ‘a kind of circuit’, which does not originate from us, but which plays over and between us, and inclines and binds us with the human and non-human elements of our socio-equipmental environments (Wynn 1997, 255).

All bodies and objects are part of the flesh of the world, but this flesh is not amorphous; all difference between perceiver and perceived or between object and subject is never *completely* obliterated. Since no two material entities can exist in the same space at the same time, there is an inevitable distancing, a spread, a divergence, or 'a space of non-coincidence' (Weiss 1999, 120). The significance of this non-coincidence operates at the pre-reflective level as a continuum of 'like-me-but-not-like-me' (Dillon 1990b, 89). The foundations of a self-other distinction develops in children in the first two years of life aided by the introduction of mediating technologies to facilitate the transition. The distinction will continue to develop, and with the passage of time, grow to incorporate all of the child's experiences with-in-the-world. Thus it will gradually come to take account of the recognition of the full range of similitude and divergence in others, including non-human others, who are similarly in the world but 'over there' (Dillon 1990b, 89). It follows then that reversibility facilitates our understanding of the relationships we have with other humans and things in our world. As such it allows us to account for relationships between humans and humans; and between humans and non-humans, all of which are enabled in the space of non-coincidence, or *écart* (Merleau-Ponty 1964, 16).

We can better understand *écart* and the relational ontology which emerges within the space of non-coincidence by considering Winnicott's conception of 'potential space'. Referring to 'potential space' Lally offers a concise explanation of *écart*:

Winnicott uses the term 'potential space' to describe the gradually evolving and expanding experiential sphere of perception and action which constitutes the individual's everyday world. This space, essentially the interface between the inner life of the individual and that individual's everyday interaction with external reality, is described by Winnicott as 'a place for living that is not properly described by either of the terms 'inner' and 'outer'' (Winnicott 1971, 106 cited in (Lally 2002, 28)

Hence potential space, or the space of non-coincidence, gradually facilitates infants' transition from introception to object relations. While Winnicott uses the term 'potential space' and Merleau-Ponty uses the term *écart* they nevertheless refer to a gradually widening space of perception and action that enables an

understanding of ourselves as discrete beings with-in-the-world, along with other beings (or flesh). Just as *écart* refers to a space which enables perception, so potential space includes an experiential sphere which informs our understanding of the world, the elements of that world and ourselves with-in it.

Although chiasmic relationships are reversible, reversibility is never complete (Wynn 1997, 257). Non-coincidence, or some degree of physical separation, is a central constituent of any chiasmic relationship since such a relationship relies on enough disconnection to enable a mutual inclination of being to being without collapsing, breaking or one being absorbed into the other (259). Hence it is important not to confuse reversibility or incorporation with coincidence. Just as infants' bodies do not merge, collapse into, or coincide with other bodies, the world does not collapse into or merge with infants' bodies despite each becoming part of the other. Between the two sides of flesh (infant and world) the spread, dehiscence or *écart* must exist to allow perception to take place (Merleau-Ponty 1968, 136). Without non-coincidence there is no perception. Therefore, as Dillon (1990) notes, by virtue of the non-coincidence of their bodies, infants cannot live their mothers' flesh: 'at least since parturition, the infant is a discrete body and lives its separateness' although she or he does not initially experience it as such (Dillon 1990b, 89). Regardless of whether or not very young babies are necessarily or consciously aware of their separateness they nonetheless can only ever live their own bodies, as indeed is the case for all of us. This reinforces the notion that we all arrive at our 'point of view' of the world, precisely from where we are situated in relation to it. The reversibility of flesh is the very thing that allows us to perceive, or take in the world, however, chiasmic relationships are not relationships of possession, with one side of the relationship owning and controlling the other, but rather, as Wynn contends, are relationship of 'dispossession' (Wynn 1997, 258). For example, the material properties of, say, a child's plastic toy block, are not owned by the child—their shape, size, texture and colour are their own, yet they are not independent of the child either. They present themselves to him or her as possibilities or affordances. They accommodate an affordance relation, intertwining with the child's corporeality. The chiasm is a relationship of dispossession in that it requires sufficient

separation to provide for the mutual inclination typified by the affordance relation.



Figure 3.1 Block Affording Chewing



Figure 3.2 Block Affording Banging on the Floor

For an adult, a block may afford stacking and colour and number identification, however, for a very young child they afford chewing, banging on the floor and throwing (as shown in figures 3.1 and 3.2), as well as the differentiated affordances which adults have come to learn. The object-child relation is initially one of undifferentiated experience while the object-adult relation becomes differentiated in the process of enculturation. It is nonetheless in both cases a relationship of dis-integration which is also always a relationship of integration, or perhaps more specifically a relationship of exchange and fusion with each accommodating the other.

Newborn infants are initially integrated with their environment. Childrearing artefacts, such as baby carriers, seek to replicate the prenatal maternal provision allowing infants to experience a sense of continuity. Yet, as Dillon (1990b) notes, only from the philosophical standpoint of a supposed consciousness which transcends experience is it possible to infer that the lack of conscious differentiation, such as that attributed to very young children, can be equated to lack of differentiation altogether (89).

Using the example of the block in figures 3.1 and 3.2, we can see that while Kane and the block are connected with each other there is, as Wynn contends, ‘always a spreading off or a spreading away that Merleau-Ponty calls the spread of *écart*’ (Wynn, 1997, 255). Although baby and object can never coincide or merge with each other completely, a folding over, doubling, overlapping of the two-sidedness of flesh is always apparent (Wynn, 1997, 255). Each maintains its own particularity—even when in the child’s mouth, the objects are still distinct—and while the spread of *écart* is narrow and deep, it nonetheless is a space, or more explicitly, *the* space which allows perception to take place, facilitating a growing distinction between self and other. As such both the block and the baby constitute the chiasmic relationship that is holding and being held.

Infants ‘ride on intermingling waves of sight, sound, touch, taste, and, especially, smell’ (Ackerman 1991, 289). figures 3.1 and 3.2 offer an illustrative example of this ‘translatability of one region of existence with another’; block play is visible, touchable, feelable, hearable, tasteable and smellable simultaneously. Hence, for very young children playing will always take place within a perpetual circularity of perceiving and perceived. This open, sensual, prelogical, nonhierarchical unity which is used to describe children at birth is known as coenaesthesia, and is ‘the potential and perception of one’s whole sensorial being’; it is neither rare nor pathological but ‘exists as the embodied underpinning of later hierarchical ordering of the senses’ (Sobchack 2004, 69). The later hierarchical privileging of vision and sound is an accomplishment of enculturation and thus, very young children, whose bodies have not yet been culturally inscribed ‘experience a greater “horizontalization” of the senses and consequently a greater capacity for cross-modal sensorial exchange than do adults’ (Sobchack 2004, 69). The foregoing not only speaks to what makes very young children sensorily different from older children and adults. Organization of the senses comes with maturity and is underlain by more fluid movement between the senses.

Reversibility is the translatability of one region of existence with another but also of self and other. The translateability of sight into touch and vice versa or the intertranslatability of the seer and the seen. Holding is simultaneously a being held. Touching will always be seeable, hearable. Reversibility is the notion that every perception has a counter perception. There is an inherent circularity in the circuit of perceiving-being perceived. (Wynn 1997, 256)

Although on an intellectual level we may prioritize vision, for adults as well as young children perceptions are experienced as a unified whole ‘in relation to an experienced environment’ (Ihde 2002, 38). That is, we do not experience our environment with only one of our senses at any given time, rather ‘our whole-body perceptions are sensorily synthesized in our interactions with a “world”’ (Ihde 2002, 38). Thus, all experience is structured by all of the senses, not just one in isolation (38). For this reason, Wynn notes:

infants initially are in a special relationship with Being because their bodies are not yet owned and personalized and enculturated. They live in a relatively undifferentiated primordial attunement to the world of motility, listening, touching, and feeling. Their bodies reverberate with the world and similarly ring out the world. Their social responsiveness and their motor, auditory, visual, and tactile structures are not yet channelled and specified, they are open to all of the possibilities of the world radiating around them. (Wynn 1997, 263)

As noted by both Wynn and Sobchack, children do not experience as adults do. As embodied beings we cannot help but see, hear, touch—even if only the pressure of our own weight—smell the air that we breathe, and taste—even if only the taste of our own saliva—simultaneously. In Western cultures, however, we tend to privilege sight and sound at the expense of our other senses, equating sight with truth (seeing is believing), knowledge (I see what you mean), objectivity and rationality. We still experience them, but we tend to overlook them in our experiencing. Infants and toddlers exist in a primary reversible relationship with the mediating technologies. This relationship initially has nothing to do with content, but rather is in relation to the world, the possibilities of which are open. For infants in particular but also toddlers to a degree, complex media interfaces are not experienced any differently than any other objects, or tools in Ihde’s sense (Ihde 1990): for very young babies ‘it is all *a first experience*’ which will be repeated to inform infants’ growing realisation that they are distinct individuals who exist apart from ‘others’ (Winnicott 1988d, 94-95).

### ***Transitional Objects—Textures of Flesh***

Infants, according to Winnicott mature through the process of dis-integration, which is also always a process of integration (Winnicott 1988a, 44). In dis-

integrating from primary caregivers, infants are integrating towards the elements of the world—spreading off and folding over. For Merleau-Ponty this integration and disintegration nexus is part of the child's perpetual movement towards the world (Merleau-Ponty 1962, 144-5). Winnicott suggests that infants experience anxiety associated with dis-integration and that the extremes of disintegration, or attachment and detachment, or as Winnicott posits, being and annihilation, are softened by the adaptation of caregiver or caregivers (Winnicott 1988b, 44-57). As Lally succinctly puts it:

It is essential to the successful unfolding of potential space that the individual is able to have confidence in the continuity of his or her experience—that ontological security is maintained. In earliest infancy, this is achieved by the repetitive and reliable nature of parental management. (Lally 2002, 28)

Lally notes that ontological security has its genesis in the reliable and recurring affordances of the facilitating environment which are gradually displaced by things such as transitional objects. Transitional objects are 'objects [which] are not part of the infant's body yet are not fully recognised as belonging to external reality' (Lally 2002, 28). They are the objects—things extraneous to the child's body—which ease the transition from dependence to independence, from introception to extroception, self to others, which intervene into the potential space between carer and infant *and* provide for babies' and toddlers' exploratory adventures. Winnicott's rather negative and traumatic interpretation of the role of transitional objects and children's experiences of transition underplays the revelatory capacity of the potential space as babies' opening onto the world—an exploratory holding. Transitional objects are the beginning of very young children's technology-object relations in which all objects are tools, or openings onto the world, and all tools are understood as mediating technologies.

Transitional objects are infants' first possessions which fill the space between introception and exteroception; between carer and child. That is, they are often not explicitly recognised by the child as existing apart from him or her, but gradually facilitate the child's understanding of him or herself in relation to objects, increasingly allowing the child to experience 'human action employing artefacts to attain some result within the environment' (Ihde 2002, 12). Drawing significantly

on Winnicott's psychoanalysis, Lally observes that:

Material culture shapes subjectivities and social identities through the profoundly relational engagements we form with our everyday personal environments of action and interaction. It is not that the objects of material culture act as a 'human mirror', passively reflecting or making identity, but that they are actively involved in the construction of human subjects in the social and cultural world. (Lally 2002, 24)

Here Lally explicitly recognises how technologies mediate children's developing understanding of their own being-with-in-the-world by affording diverse experiences of exploration and discovery, by their embeddedness into the rituals and practices of everyday life and by intermingling with very young children's understandings of themselves as discrete yet connected entities within the world.

Babies' facility for textural understanding of their socio-equipmental environment is also demonstrated in their use of transitional objects:

where there is all the difference in the world for the baby between silk, nylon, wool, cotton, linen, a starched apron, rubber, and a wet napkin. (Winnicott 1988c, 30)

That is, the way that children 'feel' the world in affective terms—how children are moved by, and act in the world—is informed by the way the world feels to them in sensorial and material terms. In other words infants come to a relational understanding of comfort as associated with texture and deep chiasmic intertwining. Just as a held baby will experience warmth, softness and a general feeling of bodily wellbeing which assists in settling them to sleep, so too transitional objects seem to the child to give warmth or to display some characteristic of life, and often become indispensable when settling babies (Winnicott 1980, 6). Transitional objects occupy the 'indeterminate area of *experiencing*, to which inner reality, and external life both contribute' (Winnicott 1980, 3). Transitional objects must be able to withstand biting, sucking, throwing, caressing, pinching, banging onto and into things, as part of the variable affordances they offer and babies' indeterminate uses of them. As the spread of *écart* between carer and infant widens the flesh of the transitional object rushes in to supplement and finally exceed the maternal provision and affording exploratory experiences.



## *Feeding Technologies*

Relations with others are “not secondary and subordinate” but facilitate the child’s perceptual, affective and intellectual grasp of the world. (Merleau-Ponty 1964b, 99)

Infants are initially introduced to their particular socio-equipmental environment by their caregivers. The type of socio-equipmental environment is thus embedded in a pre-existing socio-cultural *habitus* in which babies progressively take up dwelling. That is, they come to inhabit, or learn habits of being. The relations we have with human and non-human others are primary yet not solely of our own making. The types of objects we introduce into infants’ and toddlers’ experience not only constitute, but are also constituted by the particularities of the lifeworlds that babies come to inhabit. As such, they are partially determined in relation to social expectations about childrearing. For example in contemporary Western Cultures it is generally considered more appropriate to provide very young children with fluffy toys and soft objects than the metal or wood toys which may have been given fifty years ago. This is consistent with the concept of ‘risk culture’ proposed by Ulrich Beck and Elizabeth Beck-Gernsheim (Beck and Beck-Gernsheim 2001), wherein children, as a symbol of hope, need to be protected (Spigel 1998, 111). As such, very young children’s initial grasp on the world is a taking in which has been shaped for them partly by societal norms, but also, in part by individual carer values and beliefs, along with perception and agency of the objects.

This is particularly notable when considered in relation to the cultural and historic specificities of feeding technologies. In what follows, I will initially consider the historical changes in the technological artefacts which intervene into the feeding experience, configuring carers’ and children’s experiences in terms of the mouth-feel associated with various food tools, and the texture of the materials from which these mediating technologies are made. Subsequently, I will speak to the embeddedness of feeding technologies within the palimpsests of their attendant sterilizing technologies as well as the technology of baby formula.

Feeding technologies, like all other technologies, change over time and are embedded in cultural habits of being. For example, in Ancient Roman times,

earthenware, swan shaped bottles like the one shown in figure 3.1, filled with either milk or water, were used to nurse infants ([sciencemuseum.org.uk](http://sciencemuseum.org.uk)).

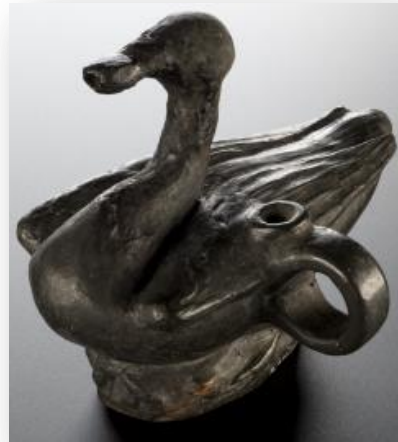


Figure 3.3  
199 BCE – 500 CE Roman Feeding Bottle ([sciencemuseum.org.uk](http://sciencemuseum.org.uk))



Figure 3.4  
1770- 1835 England Bubby Pot for Infant Feeding ([sciencemuseum.org.uk](http://sciencemuseum.org.uk))

From 1770 in England, ‘Bubby pots’ like the one in figure 3.2 were used. Prior to the introduction of milk powder or condensed milk in the 1860s, bubby pots, fashioned after teapots, were filled with a liquefied mixture of bread, flour, sugar and milk. This mixture was sucked through the perforated spout which was often covered with a cloth ([sciencemuseum.org.uk](http://sciencemuseum.org.uk)).

A mixture called ‘pap’ which was a mixture of bread or flour and water, similar to that used in the English bubby pot, was sucked through the metal (silver) mouthpiece of the feeding bottle from Germany used in the 1700s (figure 3.3 ) (sciencemuseum.org.uk). ‘Panada’, another mixture used to feed infants was made of bread broth mixed with legume and fats or eggs.



Figure 3.5  
1701 – 1800 German Feeding Bottle (sciencemuseum.org.uk)



Figure 3.6  
1935-1945 English Infant Feeding Bottle (sciencemuseum.org.uk)

The bottle in figure 3.6, which was manufactured from the 1930s to 40s had a rubber teat at one end and a valve at the other to reduce the amount of air that babies swallowed, allegedly to reduce the incidence of colic (sciencemuseum.org.uk). The inclusion of a brush for washing is significant of the value attached to children towards the end of the Second World War.

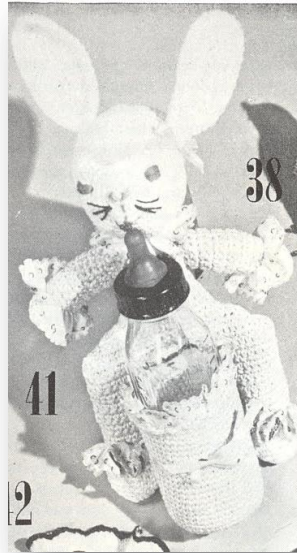


Figure 3.7  
1950s Infant Feeding Bottle (Dunn 2010)

By the 1950s the shape of bottles had changed to the shape that is more familiar to us today. Bottles, such as the one shown in figure 3.7, were still made of glass with rubber teats attached to the end by a Bakelite ‘nut’. This was to reduce leaking and ensure that the teat stayed in place.



Figure 3.8  
Contemporary Infant Feeding and Sterilising Package (Heart 2011)

Contemporary feeding bottles are generally made of plastic to prevent breakages and potential cuts. As we have become increasingly aware of hygiene, bottles are also routinely sterilised in apparatuses like the one shown in figure 3.6. The historically specific experiences of the above feeding technologies are consistent with the cultural understandings of babies, health, safety and risk of the time. For

instance, the use of earthenware, porcelain or glass would be considered risky by today's understandings; sugar mixture, bap and panada were replaced by nutrition technologies; cloth was recognised as unhygienic and replaced by sterilisable materials and sterilising technologies. Sucking panada through a cloth covering a metal spout makes the sucking harder, both in terms of being more difficult but also in terms of hardness on babies' mouths and gums. Today's bottles are made of plastic with soft rubber teats, each of which is sterilized and cleaned before being filled with prescribed amounts of liquid prepared in prescribed ways. As such they enter into a hermeneutic relation with caregivers, where prescribed amounts are 'read off' the bottle, which has a measuring scale on the side, and the strength of the mixture is read off the instructions and then again in the measuring. The experience of a rubber teat is a softer feel than that of metal, porcelain or glass, and the risk of breakage, leakage, potential choking and disease is reduced in modern feeding technologies. There are, however, issues of preparation and cleaning time and monetary costs involved in adopting the newer technologies.

Winnicott assures us, against charges of sentimentality that psychoanalysis has to some extent over emphasized the importance of the actual breast, which should instead be understood as an analogy of mothering and parenting more generally. He argues that 'holding and handling are more vitally important indications of management than is the actual fact of a breast-feeding experience' (Winnicott 1988c, 25). A great deal of the richness of engagement between mother—or father or other caregiver—and the baby can be maintained in bottle feeding (Winnicott 1988c, 30). Accordingly he cites such things as eye contact and touch, or closeness. He does speculate, however, as to whether 'the whole taste and smell and sensuous experience of a breast-feeding is something that is absent when the baby engages with a rubber teat' (Winnicott 1988c, 25). Given that we experience with all of our senses in concert, it is perhaps more appropriate to suggest that the quality of the experience of breast and bottle feeding are different but neither is more or less sensory than the other.

Both bottle and breast feeding can afford the warmth of body on body contact but the quality of touch is different. The shape, density and consistency of breast yield

to the touch, but obscures baby's perception of the world beyond it, yet its warmth and relative softness afford caressing, the quality of which is changed from breast to bottle. While physical closeness and eye contact are able to be maintained in a bottle feeding situation, it is not a necessary condition as it is in breastfeeding, as bottle feeding may take place without any physical contact between a carer and a baby. Bottle feeding can be delegated to fathers, siblings and other child care providers, but it can be facilitated by the inclusion of other technologies such as pillows on which the bottle can be supported.

Winnicott argues that 'the baby's development cannot take place except in relation to the human reliability of the holding and the handling' (Winnicott 1988d, 97). Holding, however, does not necessarily only relate to physically holding, rather it is also implicit in the 'repetitive and reliable nature of parental management' (Lally 2002, 28). This holding, which is part of a spectrum of holding in babies' own perpetual holding state—held by gravity, held in arms, held in containers. As such we may concur with Lally who points out that, the facticity of material objects; their tangible existence, their 'permanence from moment to moment' anchor us in the 'real world' (Lally 2002,26).

When we consider Winnicott's statement as implying both a literal and metaphorical holding we obviate the binaries of and judgments associated with physical holding which are inconsistent with a phenomenological understanding of the reversibility of flesh and the subject-in-the-world in that holding takes place with or without actual holding and holding is afforded in a variety of ways.

In figure 3.9, taken from my own photo album, eye contact and touch, or closeness are indeed maintained in the holding, body-body relation. The space of non-coincidence between us is minimal: the chiasm is deep. For my niece, the mouth-feel, or tactile sensation that food gives to the mouth, gums, tongue and lips, while similar, is nonetheless different to breast feeding. Fluid flow from a bottle relies more on gravity and is generally faster than the flow from the breast. It is also constant and supply can be guaranteed which is not always the case with breastfeeding. The production and flow of milk from the breast is stimulated and maintained by the baby's tongue or jaw movement which initiates the 'let-down'

response (Inoue, Sakashita, and Kamegai 1995). As Ihde points out with every amplification there is a concomitant reduction and it is important to recognise both, if we are to gain a greater understanding of the ways in which young children's existence is technologically textured, or mediated (Ihde 1990). While the bottle still requires effort in terms of breathing and swallowing, it is nonetheless an amplificatory technology which improves the yield for the amount of effort involved on behalf of the babies, but precludes the tongue on breast feel of breastfeeding.



Figure 3.9 Bottle Feeding

Breastfeeding and bottle feeding also afford different experiences of taste, smell, touch, sight and sound. As can be seen in figure 3.9 bottle feeding allows for a variability of provision in that it is possible for the bottle to contain a number of different liquids, which can be hot, cold, or anything in between. In the picture, the bottle contains apple juice. As a baby, I could not tolerate milk, so my mother would cut a larger hole in the teat and mix strained baby food with evaporated milk to feed me. The contents of a bottle can be sweet, sour, acid or bitter depending upon what is put into it, yet a breast only yields colostrum or milk, or in the case of mastitis, a mixture of colostrum or milk with blood. Unless breast milk is expressed and refrigerated for later use, it remains at body temperature while bottles cool down. The consistency and taste too, of breast milk, are not able to be manipulated as they are in bottle feeding. The sound of breastfeeding

and bottle feeding are also different. Bottle feeding is not only accompanied by the sounds of slurping and murmuring that breast feeding is, but the baby-bottle relation produces sounds of bubbling when the milk runs low or the baby has created a vacuum with their sucking creating a different auditory relation to the baby-breast relation. Breastfeeding too, can be accompanied by maternal sounds of pain in the case of mastitis, when babies try their new teeth out on the nipple or when they scratch in their caressing, something that does not accompany bottle feeding.

There are circumstances under which breastfeeding is not possible, or not feasible, and bottle feeding becomes a desirable and workable option in which much of the richness of the experience can be maintained (Winnicott 1988c, 25). For instance Emma, who already had a three year old and a four year old, breastfed her twins for the first six weeks of their lives before abandoning it as an unworkable situation. While we understand that the breast is flesh, we should also be mindful that the bottle is also flesh in Merleau-Ponty's terms, albeit hard flesh, which rushes in to fill the chiasm between carer and child. Bottles may be considered as one of the first fresh instruments which babies incorporate into their own being, opening an exploratory space; the spreading off of *écart* is greater in bottle feeding than in breastfeeding, affording the baby access to their socio-equipmental environment beyond the mother.

As Ihde remarks our existence in the world is not only technologically textured in terms of big things, but 'also with respect to the rhythms and spaces of daily life' (Ihde 1990) and it is through the rhythms of everyday life that the mediating potential of feeding bottles is most apparent. If breastfeeding goes as planned, babies' needs can be met 'on demand' and a ready supply of milk is available, which is not only the right temperature but requires no measuring and mixing.

Yet, breastfeeding does not always go as planned and consequently sometimes there is not enough milk. With bottle feeding we can be assured that infants receive regular amounts and that it is of consistent quality, although mixing measuring heating and sterilising may render it not as readily available 'on demand'.



In the service of scientific rationality, measuring, comparing and categorization came to the fore in Western societies in the post-enlightenment era of modernity (Romanyshyn 1989). This preoccupation provoked and maintained the emergence of a number of specialist fields. For example, as Rima Apple points out:

In the nineteenth century pediatrics did not have the status of a defined medical specialty, and few American physicians devoted any time to pediatric research; but doctors were not totally uninterested in or oblivious to child health. In popular medical manuals physicians covered a wide range of health topics, sometimes including a section on infant feeding. A few physicians began to construct theories of infant feeding and to devise 'scientifically' correct infant formulas. (Apple 1987, 6)

Infant management and feeding became a science which could only be undertaken under 'expert medical guidance' in the nineteenth century (Bryder 2009, 55). The introduction of, not only the bottle, but its attendant sterilizer, heating apparatus, formula and so on, transform the temporal and spatial organization of infants' and carers' daily lives. Even when the formula is prepared in advance it requires heating and once the liquid is gone, the bottle and teat are sterilised in preparation for subsequent feeds. Furthermore, the timing of feeds is measured to ensure adequate feeding and a regular routine. The quantity of food given, particularly while bottle feeding, is also measured. Even in breast feeding, mothers are encouraged to allow the baby to feed for x number of minutes on each breast at intervals which are set out by the 'ideal'. For instance, KidsHealth.org suggests that:

A newborn baby needs to be fed every 2 to 3 hours. If you're breastfeeding, give your baby the chance to nurse about 10-15 minutes at each breast. If you're formula-feeding, your baby will most likely take about 2-3 ounces (60-90 milliliters) at each feeding. (KidsHealth 2010)

This is part of the broader measurement strategies and milestones that monitor infant growth. Every aspect of infant development became measurable and regulated. Babies' weight and length are measured soon after birth, as is their heart rate, response to stimuli and grimace<sup>5</sup>, and this continues throughout infancy

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<sup>5</sup> Immediately after being born, babies are given an APGAR score out of 10. APGAR is an acronym for Appearance, Pulse, Grimace, Activity, and Respiration (KidsHealth 2010).

and is recommended into childhood, with height and weight measured on a regular basis and compared to the norm. KidsHealth offer a growth chart so that babies' height and weight can be compared to the standard.

Formulas are measured to ensure the right strength and consistency – too little powder and the baby will not get enough nourishment; too much may cause constipation. The water that the formula powder is added to should be no less than 70 degrees but it should not be given to the baby when it is either too hot or too cold. Of course the primary benefit of this level of measuring, in contrast to breastfeeding, is that caregivers can know how much, and what strength of formula the baby is consuming. The amount of sleep babies get is also a matter for measurement and comparison. Infant care thus becomes embedded in a series of hermeneutic relations where the instruments of measurement are 'read off' to make decisions in the normative discourse of childrearing. As Ihde points out, in Western scientific discourse, '[t]o be known, phenomenon must fall into the horizon of intentionality, and fall into it in a certain way. This is what the instrument makes possible' (Ihde 1979, 23). In the case of infant care 'the horizon of intentionality' to which Ihde refers is technologically informed decision making aimed at the goal of normal development. As such, infant care becomes instrumental, carried out through culturally and historically specific set of praxes along with attendant technological apparatuses.

The ways in which very young children's time and space are organized, and the sensory qualities of feeding routines synthesise to constitute the texture of the situated lifeworlds which infants inhabit, establishing habits of being. Bottles are technologies, with a material component, which enter into a set of human praxes, which are not produced, used, developed and so on, in isolation from their cultural context (Ihde 1993); and, crucially they intervene into the space between carer and child, mediating the feeding experience for both. Baby bottles mimic certain aspects of the maternal provision and indeed the maternal body with varying degrees of success.

As children's embodiment matures, the affordances of the technologies change along with them. As babies become toddlers, their increased mobility changes the relation between the child and the breast or bottle and the bottle can take on a different significance as a mobile container. Anecdotally, some toddlers who still take a bottle, can be seen walking around with the teat clasped firmly between their teeth with the rest of the bottle left hanging from their mouths. Initially, as babies mature, the feeding tools they use change from fingers to spoons and ultimately to knives, forks, spoons, bowls, cups and so on as they learn body habits of feeding.



Figure 3.10 Finger Feeding



Figure 3.11 Early Spoon Feeding

For babies at about five or six months of age, spoons afford mash-into-the-hair-and face-ability, painting-the-table-ability, throw-ability, drop-ability and bang-ability, as well as ultimately feed-ability as a graspable aspect of their embodiment. Hence spoons afford a range of sounds and tactile experience which are not consistent with their intended use. It is only through disciplining the body

through repetitive experience that babies learn the ‘appropriate’ way to use eating utensils. Ultimately, with practice the fragmentary embodiment in relation to eating technologies becomes structured and spoons and other eating implements are incorporated into the child’s own bodily actions allowing very young children to realise the intended use of utensils and the incorporation of feeding tools into their corporeal schema.

### ***Dummies-Pacifiers***

When I first met two and a half year old Jacob, he had two pacifiers in his mouth. The second youngest of four children, Jacob’s parents had been advised that they should stop him from having a pacifier as it would ruin the shape of his teeth. Trying to follow the dentist’s instructions they were vigilant in not allowing him access to it, yet this did not help since Jacob reverted back to sucking his thumb when the dummy was taken away. This illustrates the point which Lally makes that while ‘new technologies displace earlier ones, that displacement is neither complete nor simple’ (Lally 2002, 3).

Perhaps the most widely recognised theory of the use of transitional objects like dummies is to mitigate some of the trauma associated with ‘withdrawal of maternal breast and then mother herself’ (Dillon 1990a, 21). Despite pacifiers’ capacity to reduce buccal exploration, dummies and other transitional objects are not gap fillers but mediators between very young children’s bodies and the world. Transitional objects are not part of the infant’s own body nor are they ‘fully recognised as belonging to external reality’ (Lally 2002, 28). As Lally suggests, transitional objects—in this case pacifiers—are thus ‘the interface between the inner life of the individual and that individual’s everyday interaction with reality,’ occupying the ambiguous space between introception and extroception (Lally 2002, 28). As children move along the developmental continuum towards relative independence, as Jacob has, a pacifier may become what Winnicott suggests is the child’s first possession; one of the things necessarily provided for them, but over which the infant retains control (Winnicott 1980, 3). Pacifiers may not necessarily seem to ‘have a vitality or reality of [their] own’, which is one of Winnicott’s criteria for transitional objects, but they do have a shape and texture which mimics the nipple

or at least the teat of a feeding bottle, affording some of the sensory experience of feeding. Dummies thus, literally fill the space between inside and outside, mediating the experience of sucking and mimicking aspects of care.

Winnicott suggests that transitional objects are ‘excitedly loved and mutilated’, that is, they must be able to survive loving, hating and even aggression, and they must not be changed unless the child changes it (Winnicott 1980, 6). To project adult conceptions of love and hate onto babies is problematic, in that it implies an emotional and cognitive understanding and intention that we, as adults, cannot know whether very young children possess. Nonetheless, transitional objects, while being provided for babies, are their first possessions or primary objects over which the child has some control. In my experience with my son, my younger siblings and my own attachment to a pacifier, regardless of the age or condition of a pacifier, attempting to replace it with a new one is accompanied by complaints on behalf of infants and toddlers. Hence dummies and other transitional objects must be tough enough to withstand multiple sterilizations as well as dragging in the dirt and biting. Dummies thus become different types of things, changing affordances when babies’ get teeth or start to crawl or walk. This is one example of the ways in which transitional objects adapt to a range of use-contexts and embodiment changes.

There are degrees to which our experiences of the world are mediated by the materiality of technologies (Ihde 2002, 17). Human-technology-world relations exist along a continuum of experiences. At one end are embodiment relations where we experience the world through the technology as an aspect of our embodiment, exemplified in the previous chapter by the baby walker which becomes a part of babies’ capacity for movement and where the focus is not the walker but realisation of a goal that baby-walker relations affords. At the other end is the hermeneutic or alterity relation which signals an experiencing *of* rather than through or with technologies. In this instance the technology becomes an ‘other’ from which we ‘read’ information, as in the case of the baby bottle where we may read off the correct amount of fluid for the baby to drink (Ihde 1979, 10-13). As Ihde notes, ‘in hermeneutic relations the machine becomes “other”. But precisely because it becomes “other” it now has different possibilities’ (Ihde 1979, 12). Relations with

dummies are some of the first embodiment relations which sometimes oscillates between embodiment and alterity as experiences *of* mediating technologies (Ihde 1979, 11). Dummies are experienced as quasi-others by babies and this has implications for their use as transitional objects, as is apparent when trying to ‘break the habit’. Human-technology relations are not fixed, but oscillate between embodied, background and alterity relations where the former is an experience of the world *with* the technology and the latter where our experiences are experiences *of* the technology (Ihde 1979, 12).

## ***Clothing***

Clothing represents another type of relational ontology which infants and toddlers have with mediating technologies. If we again visit Ihde’s preliminary definition of technology we are reminded that technologies must have a material element, or object status, and must enter into a set of human praxes (Ihde 1993, 47). As such, they enter into a set of human-technology relations specific to affordance relations with our own embodiment and experiences in and of our particular environmental provisions. In the case of clothing, it can scarcely be denied that clothing mediates experience. Clothing may be seen as technics or artefacts which have been put to human use to achieve a result in an environment, and which necessarily mediate our experiences in and of the world (Ihde 2002, 12).

Clothing, like most technologies, do not only exist in one immutable relation but may exist as relations of various ilks simultaneously. As adults, we all experience the world through our clothing. For example, we experience our comfort and warmth through the clothing we wear. Yet, clothing as fashion takes on a hermeneutic relation from which we may ‘read’ style, taste, class as well as many other markers of cultural affiliation, in this way we can see that clothing functions on all three planes of meaning—technomic, sociotechnic and ideotechnic. We may be said to inhabit our clothing, scarcely aware of its existence in a background relation sometimes, and as a hermeneutic relation at others, and often simultaneously. Varying infant-clothing relations will be discussed in the following example from my observations of Emily and Kane, on an occasion when they were dressed in baby sleeping bags (figure 3.10).

The sleeping bags to which I refer are made of a polar fleece fabric which is both soft and warm; hence despite being winter the babies were able to experience a soft warm environment. Yet these bags mediate very young children's experience in other ways. The baby sleeping bag, like an adult sleeping bag is, as the name suggests, a bag that contains the body of the wearer. Unlike an adult sleeping bag, however, baby sleeping bags have sleeves which free up babies' hands and arms. Garments such as these are designed primarily to keep babies warm and covered while they sleep yet they are hybrid, sleeping bag-clothing items as they are also used as house clothes in the winter months, particularly for babies who are not yet able to move about. Emily had just starting to crawl when I visited and watching her in her sleeping bag it was apparent that the bag constrained her capacity to move about her environment as it became tangled and caught up underneath her (figure 3.12), making crawling more difficult. Even Kane, who was not yet able to crawl, was constricted in his activity by the bag.



Figure 3.12 Baby in Sleeping Bag

The bag extends from the back of the neck to beyond their feet and consequently made bending forward more difficult as the bag pulled down at the back of their necks and became tight across their backs. Clothing thus may be considered as both constraint and enablement, oscillating between a background relation of inhabitation and to an alterity relation of otherness as it transforms from experiencing *with* to experience *of* when it becomes uncomfortable or restricts mobility. By disabling her ability to move about in the house, Emily's experience of the world was reduced to the status of immobility. That is, her ability to act

was inhibited by the clothing which simultaneously facilitated warmth and normally comfort when she was immobile. As the affordances change so too do the human-technology-world relations.

To further elaborate on the mediating potential of clothing, had the children been sitting naked on the polished wooden floor of the lounge room, they would have experienced their world very differently; not only would they have been cold, but their mobility would not have been constrained except by their own corporeality and the affordances of the environment. As Ihde notes, experiencing through artefacts as opposed to ‘in the flesh’ experiencing involves a transformation of embodied experience (Ihde 1990, 9). Borrowing from Ihde, I would suggest that the relatively transparent relation which even very young babies have with that which enfolds them enables clothing to be taken into their ‘experiencing of what is other in the World’, amplifying bodily warmth yet restricting cold and movement in what Ihde calls a ‘*sensory-extension-reduction* relation’ (Ihde 1979, 8,9).



Figure 3.13 Baby in Growsuit

Another example of how clothing may mediate very young children's experiences is apparent in the extensive use of growsuits. As can be seen in figure 3.13 Molly had a growsuit which was too large for her. The ‘feet’ consequently folded over, alternatively constricting her toes or hanging off the ends of them. As a new toddler, her capacity to walk was compromised by the encumbrance of her clothing. Nonetheless, her clothing was still experienced as



an aspect of embodied relation, literally as a second skin through which she perceived the world. The materiality of infants' and toddlers' footwear also has an impact on children's capacities to walk, climb and crawl, mediating how they may experience their environment. Toddlers, who are literally learning to stand on their own two feet and come at the world, are initially unstable as they have not yet mastered all of the body habits of standing and walking—hence the term 'toddler'—so soft shoes, particularly soft soled shoes, afford greater flexion of feet and ankles, rendering walking more achievable than rigid shoes while rigid soles may afford stability, protection from sharp objects underfoot, and greater surface area for balance. As anyone who has worn 'stiff' shoes will know they do not initially flex and conform to our foot shape or footwork, resulting in blisters and possibly bunions, transforming our human-technology-world relation from a background relation and embodied relation to include an alterity relation simultaneously. Although wearing socks or stockings mediates the rubbing, they nonetheless alter our experiences of walking.



Figure 3.14 Kane Scratching at Fluff on Growsuit

Very young children are very aware of their clothing and it occupies an ambiguous status in terms of human-technology relations. Infants and toddlers not only inhabit their clothing, they also play with, chew, suck, smell, and handle their clothing implying a simultaneity of background and alterity relations. As Winnicott notes, texture matters significantly to very young children (Winnicott, 1988, 30). On several occasions during my research, I observed Kane and Emily

actively engaged in pulling at the loose fitting feet of their growsuits, scratching at the fluff which had become caught up in the fabric and fingering fasteners on their clothing in much the same way as they engage, in early childhood with newly 'found' fingers and toes as extraneous objects. This points, not only to the ambiguity of the relations they have with their clothing and their own embodiment, but it signals distraction as very young children's fundamental way of being.

As Lally remarks 'personal possessions can be regarded in some way as an integral part of the self or as a kind of extension of the self' and this is nowhere more evident than in relation to clothing (Lally 2002, 8). Clothing is a particular type of mediating technology which is removable and put-on-able, it affords both comfort and discomfort, and it can both allow and constrain movement and consequently experience. In a variation of the well-known example of the blind man's cane used by Merleau-Ponty, wherein the man senses the world through his cane (Merleau-Ponty 1962), Ihde argues that in writing on a blackboard with chalk or writing on a piece of paper with a pencil that the writing implement is not primarily experienced 'as either thematic or as an object' but that the paper, or the blackboard is experienced through the pencil or chalk and that these implements are taken in to our 'self-experiencing' (Ihde 1979, 7). By analogy, whether it be to feel good, to look good or merely to shield us from the elements, clothing is often taken for granted and recedes into the periphery of our experiencing. Nonetheless, whether as background, embodied or hermeneutic relation or all three at various times or even simultaneously, clothing never ceases to mediate our experiences of ourselves and the world (Ihde 1979, 11).

As human-technology-world relations oscillate between background, embodiment and alterity they inform very young children's growing understanding of themselves as discrete individuals, facilitating the transition from dependence to relative independence and fleshing out their worlds and mediating the space between carer and child.

## ***Conclusion***

In this chapter I have argued that material objects figure prominently in infant's and toddlers' development and experience of the world from birth. Using examples of feeding technologies, pacifiers, clothing and returning ultimately to revisit microenvironments I have suggested that material objects mediate children's passage from total dependence towards relative independence, affording different uses as children's embodiment and understanding of themselves and the world mature, and informing how they may experience the world and their own embodiment within it. By introducing Merleau-Ponty's concepts of 'flesh' and the 'chiasm' I suggested that in some ways each of the objects to which I have referred is an integral aspect of children's corporeal schema. Winnicott has offered significant insights to this chapter, yielding understandings of the importance of the texture of objects and the foundation of ontological security. I have argued, using Ihde's critique of measurement, and in terms of the mediating capacity of technologies in relation to the spatiotemporal rhythms of life and the reductive and amplificatory capacities of mediating technologies, that while technologies are implicated in virtually all human activity that they each mediate children's existence in ways which are specific to the way technologies as transitional objects are embedded in a particular *habitus*. For instance, I suggested that while bottle feeding has the capacity to retain much of the physical closeness and eye contact of breast feeding, it also enables this particular aspect of nurture to be delegated to either other people or indeed other technologies, for example a pillow. I have also suggested that bottle feeding allows infants to be fed on schedule rather than on demand, potentially imposing an instrumental regularity – an affordance supported by time technologies.

I have also discussed the transitional objects which, unlike Winnicott, I do not take to be gap fillers of compensation for lack of the maternal breast but rather as mediating technologies which both amplify and reduce very young children's experiences and exploratory activity. In the process they facilitate a growing understanding of otherness, existing at the interface of inner and external reality. In this chapter, texture featured prominently as did the object's ability to withstand the variable affordance relations they have with very young children.

In the section on clothing I examined the relation into which children and clothing enter to suggest that with maturing corporeality, the affordances relations we have with clothing also changes, reinforcing the connection between the textured environment and the move from indeterminate to determinate experiences. The technologies which with we coexist inform and are informed by our own developing corporeality, overlain with cultural and historical expectations of ways of being-in and -with-clothing.

The objects referred to in this chapter are those which infants encounter at a very early stage in their lives and form the basis for self-other distinctions to follow. Initially these objects are experienced as bodily sensations of pleasure or displeasure, but in the process of maturation the same objects come to be recognised as originating from outside of the infants' own body, which establishes a foundational understanding within the child, that they are discrete beings. After clothing, feeding technologies, dummies and technologies of containment, toys are also objects which enter into the space of *écart*, fleshing out very young children's worlds and in-forming their understanding of themselves as well as the human and non-human others who likewise inhabit their lifeworlds. In the next chapter I will take up the themes that have been forwarded in this chapter and those preceding it to discuss how toys mediate infants' and toddlers' experiences of the world in particular ways, prior to moving on to television and new media in the final two chapters. The organization of chapters in this thesis is partly to illustrate the order in which infants and toddlers encounter various mediums but also allows for a layering of levels of complexity, thereby establishing a continuum of experience from the most basic technologies to interactive digital media, with each subset having its own formal, physical characteristics, affordances and implications for very young children's experiences of themselves in relation to the world and the technological ensembles that constitute and are constituted by that experience.

## *Chapter 4*

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# *Toys are us: Playing is being*



## *Toys are us: Playing is being*

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This chapter represents a crucial shift in this thesis which has thus far primarily examined the early relations children have with their socio-equipmental environments. This has been done by considering space, containment and emplacement in relation to very young children's developing corporeality through the mediums of incubators, cots, playpens, walkers, clothing and feeding technologies; things which children encounter and experience early in life, which are not generally considered media. This chapter will move us closer to our conventional understanding of media or 'high' technology, not only because of the discourse surrounding toys and playthings, but also because of their status as objects specifically for entertainment, as well as the materiality of such playthings, and how they enter into very young children's ontology and changing relations with mediating technologies. Moreover, it is at this point that the distinction between what we would normally consider media and what we consider playthings, becomes ambiguous, as more and more toys incorporate aspects of media, whether that be through licenced products or through the inclusion of screens and digitalisation in the toy itself. Additionally this chapter will consider the affective dimensions of these particular material objects, their affordances specifically in relation to infants and toddlers and consequently how they serve as transitional objects.

In this chapter I will first consider the status of playthings and the importance of play before moving on to toys. In doing so, I argue that the historical and cultural specificities of toys in the early twenty first century, which are expressly designed in accord with contemporary understandings of what toys should be, alongside our conceptions of infancy and toddlerhood, configure very young children's understandings of and activity within the world. As such, I will argue that toys, just as much as television or computers are mediating technologies in that they intercede into and shape infants' and toddlers' experiences and understandings of the world, as well as communicating something about the cultural context, societal beliefs, and expectations of adults. Even if we consider media narrowly as a means of, and intervention into communication (O'Sullivan et al. 1994) we

may still concede that all material objects serve to communicate meaning on one of three planes: the technomic, sociotechnic or ideotechnic. The technomic plane is one on which the appropriate use of any technology is communicated as value or otherwise. The sociotechnic is the plane on which societal aspirations and status are communicated and the ideotechnic reveals the personal beliefs and values of individuals is communicated. The relevance of these concepts will become more apparent in the discussion later in this chapter which deals with parental aspirations for their infants and toddlers, and the consequent proliferation of ‘educational’ toys.

In this chapter we will return to Merleau-Ponty’s concept of the ‘body habit’, or knowledge in the hands, in which we come to inhabit those things with which we frequently engage, incorporating them into the dynamic organization of our bodies, enabling us to experience a harmony between intention and action (Merleau-Ponty 1962, 139). Doing so will reinforce the notion that playthings and toys are integral in shaping infants’ and toddlers’ modes of existence through particular postural, orientational and gestural adjustments, mediating their stance within the world and in relation to the elements of that world (Merleau-Ponty 1962). As we have discussed, infants and toddlers infants and toddlers literally inhabit multiple simultaneous and consecutive microenvironments each with their specific constraints and enablements. This inhabitation shapes infants’ and toddlers’ experiences of space as well as constraining and enabling certain embodied and sensory perceptions, contingent upon the children’s own developing corporeality and the affordances of the techno-materiality of containment. The notion of inhabitation is grounded in the phenomenological concept of being-in-the-world but also in our understanding of *habitus* as habitual, consensual ways of being (Tilley 2008). In relation to children’s developing corporeal schemas, Heft (2003) notes that among the ‘physical-bodily attributes’ that individuals bring to an encounter are:

body size, muscle strength, postural stability, locomotor skill, and fine motor control. Ongoing changes in attributes such as these alter over time the affordance properties of environmental features that are perceived relative to the individual (Heft 2003, 174)



Consequently, the interplay between body and environment configures the particular ways in which we all may be in-the-world. The facilitating environment as a holding space then, protects infants from risk, not only physical and psychological, but also in terms of exposure to experiences which are considered inappropriate for small children. Sofia's (2000) elaboration of facilitating environments as container technologies emphasizes that these spaces cannot be considered empty or dumb spaces but are filled with cultural beliefs, values and expectations which communicate meaning. Using the examples of incubators, cots or cribs, high chairs, play pens and walkers, I argued that the constraints and enablements afforded by such container technologies in concert with children's developing embodiment situates very young children in the world in particular ways at the level of a primary relational ontology, which informs all future relations with the world and the things within it.

The phenomenological concept of being-in-the-world has enabled us to take account of being-with-in-the-world, or being-in-the-world-with other not-mes. I suggested that being with-in has significant ontological and perceptual implications for children's becoming-in-time, in that children and adults alike exist in a primary relation with technologies. This was done by developing Winnicott's concept of the facilitating environment, as self-evidently an environment of containment or holding. I suggested that the holding phase of early infancy constitutes and is constituted by a chiasmic intertwining with objects as flesh of the world. Such intertwining is primarily achieved through the environmental provision of a facilitating environment but gradually expands during maturation to include the experience of broader socio-equipmental-environments. By concentrating on Merleau-Ponty's concepts of flesh-of-the-world, the chiasm and reversibility when referring to primary objects, I suggested that as the space of non-coincidence increases children are gradually introduced to their environmental context through a process of integration and disintegration, or incorporation and separation, in a process of layered mediation.

In the upcoming chapter I will again draw upon the theoretical concepts of flesh and the chiasm to suggest that toys 'flesh out' children's worlds, filling the space of *écart* as it steadily widens between carer and child to allow the textured flesh

of diverse objects of play to enter. This will be supplemented by Merleau-Ponty's reversibility thesis, in which we must consider toys as an integral part of children's corporeality; toys like other objects are literally an aspect of our bodily schema. In this chapter I will look at the affordances offered by specific toys and examine in some depth the discourses surrounding childhood and toys and the ascription of particular stages to children's corporeality. The notion of transitional objects will again be used in this chapter to consider how material objects which mediate very young children's initial I-world relation, enable and constrain infants' and toddlers' experiences in their socio-cultural-environments.

As Romanyshyn notes, 'it is the simple things which give shape to any space, transforming it into a place, which gives us our place and without which we would have no place' (Romanyshyn 1989, 1 cited in Lally 2002, 1). Hence the playthings and toys that infants and toddlers engage with on a regular basis help to establish and scaffold significant places where children may feel at home. Yet, different types of playthings and toys afford different possibilities to very young children than we, as adults, might expect. Consequently this chapter will also consider the intentional design and marketing discourses, their implications for the types of toys we provide for very young children, and unintentional uses. In the first instance, however, I will consider definitions of play to signify the tension between adult conceptions of the purpose of play, and very young children's experiences of it.

### ***Playing is being***

One of the recurrent themes in debates surrounding children and the media is the potential impact, or otherwise, that media content may have on children's psycho-social development, particularly at the level of pro- or anti-social behaviour. However, Fiske (1987) and others (see for example Buckingham, Willett, and Pini 2011) suggest that the relationship that children, and audiences more generally, have with media texts, is often playful and interpretive (Fiske 1987). Therefore, before moving on to discuss toys and playthings explicitly, it is worth considering the concept of play due to its persistence throughout the lifespan, and to link play with a range of objects of which media are a part. Play is understood

in particular ways by adults in contemporary Western societies, which are significant in that they potentially reconfigure, or mediate, children's experiences of play, its importance to children's development and our ideas in relation to what constitutes appropriate playthings and play environments.

One of the most important things a child can do is play. Play is the essential joy of childhood and is also the way children learn about themselves, their environment and the people around them. As they play, children learn to solve problems, get along with other people and control their bodies as they enrich their creativity and develop leadership skills. (The American Toy Institute 1994)

The above quote from *The Toy Manufacturers American Guide to Toys and Play—Revised Edition* (The American Toy Institute 1994) gives some indication of the burden of responsibility which play carries in contemporary Western understandings of the term. Boucher and Wolfberg suggest that play is universal in humans although it takes various forms which makes definition elusive (Boucher and Wolfberg 2003, 340-341). From an adult perspective, play can include:

lap play (peek-a-boo, 'round and round the garden'); sensation seeking and motor exploration; rough and tumble; verbal experimentation; constructional toys (bricks, jigsaws, Lego); playground play (swings, slides, trikes); sand and water; representational toy play (dolls, cars and so on); clapping and singing games; chase and hide games; pretence and role play; teasing, jokes and humour; word games, card and board games; team games and sports; and so on and so on. (Boucher and Wolfberg 2003, 340)

Play as adults understand it, however, is not necessarily how children experience it. Danforth (2011), who also speaks to the universality of play and the elusiveness of a definition, suggests that it is an activity which can range from aimlessness to intentionality, from fun to fiercely competitive and focused (Danforth 2011, 58). Brian Sutton-Smith also suggests that play is not only fun or even pleasurable for its own sake, but rather infuses the rest of our lives and 'makes it possible to live more fully in the world, no matter how boring or painful or even dangerous ordinary reality might seem' (Sutton-Smith 2008, 95).

Frank and Theresa Caplan (1974) who have written extensively on play suggest that play is 'a voluntary activity which permits freedom of action, diversion from routines, and an imaginary world to master' (Caplan 1974, ix). Catherine Garvey

(1977) likewise points out that play is a pleasurable, spontaneous and voluntary activity and Winnicott (1980) tells us that, children play primarily because they enjoy it (Garvey 1977, 4-5). The importance of play in early childhood is further illustrated in the following quote:

During the entire sensorimotor period of children's development (birth to age 2), exploration of environmental objects (including toys and people) is a common activity. Play expands exploratory acts by attempting to test the range of affordance possibilities—that is, by finding out what the player can do with the object, not just finding out what actions the object affords perceptually (Bergen et al. 2010)

Play, for very young children, is an indeterminate activity which involves both fun and seriousness (Huizinga 1970). As such, infants in particular do not distinguish play from being, exploration, experience *or* work, as such, it may be considered as a foundational ontology. It is only with age and experience that play becomes bracketed off from other types of activities, and ultimately defined in opposition to not-play (Huizinga 1955). For very young children, in particular, play does not need a reason, but is 'experimental; it is experiential; it is exploratory' (Danforth 2011, 58). Play facilitates the creation, ownership and control of often imaginary microworlds in an otherwise largely uncontrollable world. Hence, what we consider play is dependent upon the context and indeed the orientation we, as adults, adopt towards it (Garvey 1977, 5).

Nonetheless, adult understandings of the purpose and value of particular types of play mediate how, what and with what children play, introducing children to particular cultural habits of being. In early infancy, the most common type of play with objects involves a move from indeterminacy to determinacy through the 'repetition of similar actions, and then elaboration of these actions into a broader range of actions' (Bergen et al. 2010, 2). The development of very young children's corporeal schemas, which is initially fragmentary (*lacunaire*) gradually becomes 'precise, restructured, and mature little by little' is enabled, in part by repetitive play (Merleau-Ponty 1964b, 123). Since play, for children, is indivisible from being, it facilitates infants' developing corporeal schemas enabling them to move from random, or unintentional action, to specific and intentional action through the cultivation of body habits (Merleau-Ponty 1962, 139).

### ***The role of Playthings in transition: dis/integrating babies***

Consistent with Winnicott's notion of potential space, Merleau-Ponty suggests that early childhood experience results in children coming to see that their bodies are, after all, closed in on themselves (Merleau-Ponty 1964 (b), 119). Winnicott's potential space is analogous to the space of non-coincidence—*écart*—which precisely allows for the incorporation of exosomatic entities into children's corporeal schemas (Merleau-Ponty 1962, 91). It is the specific space which allows a mutual inclination and intertwining between children and the flesh of the world (Wynn 1997, 255). That is, it is a space of potential meaning and action: a space to play. As the spread of *écart* widens, it is immediately filled with fleshly things with which infants and toddlers will play. Hence, play in the potential space between mother and child, is elaborated to play with a piece of fabric, or a toy, and ultimately may become play with media texts.

Sensorimotor play is the first stage of play, which occupies infancy to about two years of age, and coincides with the stage of early childhood when children gradually gain control over their bodily movements and learn to coordinate their gestures and perceptions of the effects of those gestures (Garvey 1977, 6). Hence it is a time rich with learning new body habits: a time when children are literally coming to grips with, or coming to understand where and how they stand in the world (Merleau-Ponty 1962). It is a time when children are gradually coming to experience the synchronization of activity and intention (Merleau-Ponty 1962).

At nearly nine months of age, Molly has a Fisher-Price® Kick and Learn Piano toy, tied to the end of her cot. The Kick and Learn Piano (pictured in figure 4.1) has been developed specifically to facilitate infants' sensorimotor play which allows them to come to a synchronization of activity and intention. The official Fisher-Price® website informs us that the Kick and Learn Piano is 'a great way to encourage baby's natural kicking motion'. The 'natural kicking motion' also speaks to the specificities of babies' embodiment, whereby feet, as well as hands and mouths are used to explore the world, until such time as they become used for walking.



Figure 4.1 Kick and Learn Piano (Fisher Price® Website)

Christine told me that Molly ‘seems to like her Kick and Play Piano because I think she’s worked out that you touch them and different things happen’ (excerpt from interview 15/7/05). The move from fragmentary random action to precise action supports a sense of achievement, empowerment and enjoyment which comes from the eventual realization of a harmony between intention and action. As Merleau-Ponty tells us, ‘the body is much more than an instruments or a means; it is our expression in the world, the visible form of our intentions’ (Merleau-Ponty 1964, 5). Thus, Molly’s apparent enjoyment of this toy is the manifestation of the harmony that she experiences between intention and performance. The manipulation of tools—in this instance of play—is learned ‘when [the child] has incorporated [the tool] into its “world”, and to move one’s body is to aim at things through [the tool]’ (Merleau-Ponty 1962, 139). Toys, thus act as exosomatic corporealisation devices which extend children’s reach and increase their agentic possibilities, consequently mediating their experiences with-in the world.

Generally speaking, babies initially play alone or with their mothers, fathers, siblings and other caregivers. Their demand for playmates, extending to a broader social sphere or cultural milieu increases with their maturity and exposure to others along with the child’s ability to explore and discover. This brings us to one of the most compelling psychoanalytic and phenomenological reasons why children play: to facilitate integration of both experience and action, and between

their inner personal reality and external shared reality (Winnicott 1942, 151). Consequently Winnicott suggests that play ‘links ideas with bodily function’ (151), which again reinforces the notion of a move from indeterminate action and experience to intentional action, and strengthens the connection between emotion, cognition and action.

Both Winnicott and Merleau-Ponty in the foregoing comments remind us that all behaviour emanates in the first instance from lived bodies and our bodily abilities to act within the world in ways that are meaningful to us (Merleau-Ponty 1967). As Taylor (1990) puts it, ‘that one is so touched, concerned, non-indifferent is a primitive fact about subjects, and this fact is what we are exploring in examining ... subjectivity’ (Taylor 1990, 2). All behaviour or action emerges *primarily* from a sensori-motor-affective complex which persists with varying strength throughout our lives. Much of what children *and* adults do, like teasing, jokes and the use of humour could be considered as play (Boucher and Wolfberg 2003, Sutton-Smith 2008). For children there is no difference; in early childhood experience and play are synonymous and configured within their changing I-world relation. It is commonly understood that early childhood experiences influence and may actually determine the adult life that follows it (Merleau-Ponty 1964 (b)). How play is conceived and configured then, has an enduring impact on the habits of being we carry into adult life.

The initial lifeworld is, according to Winnicott, the primary playground or the facilitating environment, or more precisely the potential space between babies and their carers (Winnicott 1980, 55). Lally suggests that this potential space is ‘the interface between the inner life of the individual and that individual’s everyday interaction with reality’ (Lally 2002, 28). Winnicott proposes that this space is ‘a place for living that is not properly described by either of the terms “inner” and “outer”’ (Winnicott 1980). Hence it is a space of testing, playing with the boundaries of inner and outer. In Merleau-Pontian terms, this potential space is the space of non-coincidence which precisely allows for the incorporation of exosomatic entities into the child’s corporeal schema (Merleau-Ponty 1962, 91). It is the space which allows chiasmic intertwinings of the flesh of the world (Wynn 1997, 255). The infant’s ‘openness to’ the spatially non-coincident flesh of

the world, precisely allows objects of play to be incorporated into their own developing corporeal schematics. The spread of *écart* defines the depth, texture and thickness of flesh somewhat like a rubber band which becomes thinner the more it is stretched (255). Hence, as Ihde has argued ‘our existence is technologically textured’, and as mediating technologies change, so do our experiences of the world change (Ihde 1990, 1,12).

Playthings simultaneously limit and amplify infants’ and toddlers’ abilities to act in, and be acted upon within the world. Through repetitive play, children come to in-habit their playthings just as they in-habit other spaces and objects within the socio-equipmental-environment. In-habit with the hyphen signals that in this instance the term refers both to dwelling and the acquisition of body habits in relation to playthings. While infants and toddlers act on playthings, so too do playthings act on children, through a chiasmic intertwining, which mediates their perceptual and experiential possibilities. For example, in figure 4.2 the block enters into Kane’s embodied relation with the world, combining to aim at the world, through the mediating technology of the block. That is, Kane is able to aim at the world by manipulating the block as an extension of himself. Moreover blocks afford a number of possibilities, some realised while others remain ‘potential’ such as stacking and throwing. One of the realised affordances is banging on the floor which makes a relatively loud sound. To do the same with a bare hand makes a dull thud. The feel of hitting polished floorboards too, changes as playthings change. To hit the floor with a bare hand is to feel the spread, temperature and texture of the floor while hitting it with the block, the floor is felt *through* the medium of the block. The block in this instance enters into an embodied relation where the focus of Kane’s action is the floor-hitting, rather than the block in and of itself (Ihde 1979). The block therefore becomes an aspect of Kane’s corporeality which simultaneously amplifies and reduces his experiences of the floor.





Figure 4.2 Kane Playing with a Block

In the process of maturation, we pass along a continuum from indeterminate to determinate activity within the world. The process is facilitated by our ongoing incorporation of objects which are in varying degrees, like me but ‘over there’, into our capacities to act in the world. In what follows, I will consider how toys function as transitional objects which facilitate infants’ gradual disintegration from primary caregivers and their integration into their wider socio-equipmental-environment which is shaped in part by mediating technologies, of which, media are an aspect.

Transitional objects facilitate the baby’s transition from complete dependence towards relative independence (Winnicott 1980, 17). They enter into the potential space between carer and baby to facilitate experience and recognition that we cannot inhabit another’s flesh (Winnicott 1960, 44). Thus the whole world resides in the indeterminate space of *écart* which allows us to intertwine with the world, yet not all of it is available to our perception. As mentioned previously, the process of disintegration is always also a process of integration. Thus as Varney notes: ‘parents give their children toys to bond with them but also to simultaneously facilitate separation’ (Varney 2002, 2). Hence, she suggests that as the meaning of childhood has changed over time, ‘toys have become a major means of demonstrating and defining love between generations, between genders

and between humans and commodities' (Varney 2002, 1). While Winnicott's assertion that transitional objects primarily ease the anxiety of separation, which paints a rather dismal picture of infancy, I argue that despite potentially meeting that need, they exceed it and offer opportunities for exploration and experience.

In very early infancy, carers' anticipation of, and adaptation to babies' needs and desires, facilitates the illusion that objects just appear and 'things just happen' in response to the baby's sense of its own embodiment: hunger thus equals food, assuming all goes well. For this reason Winnicott states that while transitional objects are external to babies from an adult perspective, very early in life infants do not experience them in that way (Winnicott 1980, 6). Transitional objects have a tangible material reality that can be felt, tasted, smelt, seen or heard: they are not imaginary, and thus they occupy the indeterminate space which links inner and outer, not neatly belonging to either, but simultaneously inhabiting both. Very young babies' understanding of themselves as discrete entities is immature, and is complicated by the object, which presents itself to the baby to be perceived, and becomes part of the child's embodied being-in-the-world. To constitute a transitional object in Winnicott's terms the infant must be allowed to 'assume rights over it' (Winnicott 1980, 5). That is, it must belong to the child, and the child's growing understanding of the mine-ness of the object necessarily involves at least a rudimentary recognition that the object exists, at least in some respects, apart from the child's own body. That is, it implies some movement along the continuum of divergence and similitude.

One of the most important characteristics of transitional objects is that they must be able to be chewed and sucked, since the infant's body is initially a buccal body (Wynn 1997). The buccal body refers to a 'buccal space' which coincides with early infancy and means 'that the limit of the world for the child is the space that can be contained in, or explored by, his [sic] mouth' (Merleau-Ponty 1964 (b), 122). Chewing is also partly a biological imperative in that biting things helps babies' teeth to emerge. This play with inner and outer is crucial to babies' growing understanding of themselves in their separateness, ultimately establishing as it does a permeable boundary between body and world. One example of the

developmental specificity of buccal exploration, which came from my observations, was an instance when three year old Kaitlan was attempting to fit pieces into a wooden puzzle while her eight month old brother, Kane, chewed on the corner of one of the other pieces (figure 4.3).



Figure 4.3 Buccal exploration

Anecdotally too, anyone who has been involved with young children will undoubtedly have numerous accounts of babies ‘eating’ seemingly inappropriate things like dirt, paper and snails. The buccal body speaks to the developmental specificities of affordance, or the specific relationship which babies have with individual objects in their environment (Sanders 1997). It is not until later that children learn what they should or should not eat or put into their mouths.

Such inner-outer indeterminacy is also evident in Winnicott’s argument that the lot of transitional objects is, at various times, to be enthusiastically loved or horribly disfigured (Winnicott 1980, 6). Despite the problematic ascription of love and hate to infants, we can easily identify the spectrum of affordances which need to be taken into account in toy design and manufacture. Toys must be able to withstand whatever a child may do with them in exploring what they afford. For example, Baby’s 1<sup>st</sup> Doll (figure 4.4) is huggable, chewable, kissable, hittable, throwable, hit-on-the-floorable, sit-onable, drag-aroundable, scratchable, rattleable and importantly washable, offering diverse affordances, while maintaining its structural integrity.



Figure 4.4 Baby's 1<sup>st</sup> Doll

Toy manufacturers, since at least the 1950s in the Western world have become increasingly aware of the need for transitional objects to withstand variable affordances, and have become mindful of a need for 'safe' toys in line with the requirements of facilitating environments. For instance, rattles are now made of plastics which are durable and washable (allowing germs to be eradicated), rather than porous, germ incubating wood or beads (with splinters and choke hazards), and manufacturers of plush toys are now more mindful that they are made of 'baby safe' and washable materials and do not have small parts which come off easily, at least for children under the age of three. In recognition that infants are buccal and respiratory Australian and New Zealand Standards suggest that a primary concern for manufacturers is that toys for very young children should be free from choke and aspiration hazards. Consequently they suggest the following toys as suitable for children under the age of three:

Squeeze toys, teethingers, crib exercisers, crib gyms, crib mobiles, toys intended to be affixed to a crib, stroller, playpen or baby carriage, pull and push toys, pounding toys, blocks and stacking sets, bathtub, wading pools and sand toys, rocking, spring, and stick horses and other figures, chime and musical balls and carousels, jack-in-the-boxes, stuffed, plush and flocked animals and other figures, and pre-school toys, games and puzzles, riding toys, dolls and animal figures, cars, trucks and other vehicles that are intended for use by children under the age of three (Australia and Zealand Standards 2013, 74)

While the standards acknowledge that ‘the propensity to put non-food objects in the mouth does not disappear at the chronological age of 3 years’ (Australia and Zealand 2013, 74), they nonetheless suggest that toys should be ‘safe for the intended user’ and fall within the ‘skill and interest level’ of average children of that age (74). They also suggest that ‘a parent remains the best judge of whether a child is at the appropriate development stage for safe play with a particular toy’ (74).

In addition to the inner/outer indeterminacy, transitional objects must give the illusion of being alive, and some of the ways in which such an object achieves this is by moving, giving warmth or having a particular texture, for example, fluffiness (Winnicott 1980, 6). In saying this, Winnicott makes the assumption that very young babies know what is and is not alive, which is problematic at best, since in the sensori-motor-affective level of development, almost everything may appear to be alive. Turkle found that many children up to the ages of seven or eight remain ‘concerned with whether the machines think, feel, are alive’ (Turkle 1984, 18).

Based on Piaget’s *The Child’s Conception of the World* (Piaget 1967), Turkle has, since the 1980s, been concerned with human computer relations and one particular aspect of her research explores whether children consider computers and computerised toys as ‘alive’ (Turkle 1984). Piaget seeks to understand the way children *think* about aliveness by asking children questions about the aliveness of a number of different objects such as rocks, clouds and animals. Not only does Turkle seek to understand what children think, but also what they feel about objects which are afforded the marginal status of ‘sort of aliveness’ (Turkle 1984). Using computerised toys Turkle observed and interviewed children suggesting that what they say and how they act in relation to such marginal objects can be at odds. What children consider alive is ambiguous as Turkle points out:

Sit silently and watch children pulling the wings off butterflies, staring at the creatures with awesome concentration. When they do this, children are not simply being thoughtless or cruel. They are not playing with butterflies as much as with their own evolving ideas, fears, and fantasies about life and

death, about what is allowed and what is not allowed, about what can be controlled and what is beyond control. (Turkle 1984, 31)

The butterflies in the foregoing example are marginal objects which occupy a 'sort of alive' status. As such they may be considered transitional objects in that they exhibit some of the characteristics of aliveness but their marginal status on the borders of alive and not alive, or which occupy the space between imagination and reality, afford such manipulations as wing removal.

In many instances transitional objects share the baby's cradle, cot, bed, highchair or playpen through several years yielding a consolatory presence when the child is otherwise alone. Many of the toys which are manufactured for, and given to very young babies, have faces, forwarding the impression of liveness.

Longstanding research suggests that infants recognise and show a preference for faces from a very young age (Otsuka 2014). As, Yumiko Otsuka elaborates:

Developmental studies of infants have provided evidence that this important ability exists at birth and that the face-processing biases found in adults are also evident early in infancy. (Otsuka 2014, 76)

Winnicott's formulation in relation to the appearance of liveness is thus implicit in toy manufacturing. Security blankets, articles of clothing and pieces of fabric exist at one end of the spectrum of transitional objects, through to plush toys, and as I will argue in the upcoming chapters, television, mobile phones and iPads are towards the other extreme, all either giving warmth or exhibiting some aspects of aliveness and entering into the space of *écart* to flesh out children's worlds.



Figure 4.5 Mooooo-sical Cow (Toywebb)

Many stuffed toys are fashioned after animals, or at least quasi animals; they generally have two eyes, a mouth, a nose and two ears, two arms, two legs, a torso and a head. Their plushness and softness also render them huggable and chewable, and they give warmth and texture. These toys have a robust spectrum of affordances, potentially give the illusion of liveness, and the rights of ownership of these toys are afforded to children. Many contemporary toys also have incorporated sounds, sights and smells which further facilitate the illusion of life-likeness. For example, the Lamaze Moooo-sical cow (pictured in figure 4.5) is designed specifically for babies from birth upwards. Toywebb—an online toy store—suggests that this ‘soft, huggable pal is one of baby’s first friends’ . It has vanilla scented hooves which ‘give off baby-friendly scent’ and each hoof plays a different note when it is squeezed .

Another such example is the Busy Baby Mirror, which is designed for infants from birth upwards and features a ‘baby-safe’ mirror, and soft, brightly coloured animals that make sounds when they are squeezed or touched. Winnicott’s criteria for transitional objects suggest that they: ‘must seem to the infant to give warmth, or to move, or to have texture, or to do something that seems to show that it has vitality or reality of its own.’ (Winnicott 1980, 7). While the Busy Baby Mirror may or may not give warmth, it has texture and while it does not move, except as it is moved, the animal faces and noises it makes when squeezed, and the mirror, in which babies child can see their own faces may make it appear to be alive as well as facilitating babies’ understandings of themselves as discrete entities in relation to the world. Considering that young infants are not aware of themselves in their separateness, as Winnicott points out, virtually anything that gives warmth, moves or makes a noise may be considered alive (Winnicott 1980).

Other objects too, such as a piece of cloth or a blanket, which may be considered to give warmth or texture, and are movable and transportable, may be considered as transitional objects as they are often some of the first things that children can assume ownership of. Hence, the Moooo-sical Cow encapsulates many of the features which constitute transitional objects: they are able to be chewed, they are children’s first possessions, they occupy the indeterminate space between inner and outer, and they facilitate the illusion of aliveness.

Babies can become extremely attached to transitional objects, with a great number forming a strong reliance on them, and with many such objects becoming indispensable in settling children to sleep. My younger sister, for instance formed a very strong attachment to one of her baby blankets, and when Mum washed it and hung it on the line, my one year old sister chased the blanket around, arms stretched out and crying until it was removed and given back to her even though it was still wet. For as Seigworth (2010) states:

Affect arises in the midst of *in-between-ness*: in the capacities to act and be acted upon. Affect is an impingement or extrusion of a momentary or sometimes more sustained state of relation *as well as* the passage (and the duration of passage) of forces or intensities. That is, affect is found in those intensities that pass body to body (human, nonhuman, part-body, and otherwise), in those resonances that circulate about, between, and sometimes stick to bodies and world, *and* in the very passages or variations between these intensities and resonances themselves. (1)

Winnicott suggests that once transitional phenomena have passed into our understandings of the world and ourselves the objects which we used to help ease the transition lose their affective intensity, but are not necessarily forgotten (Winnicott 1980, 6). So, while the conditions which initially may have led to the significance attached to the object itself may cease or decrease, the facility of objects to ease and comfort remains to a greater or lesser extent throughout life. Just as mothers and other caregivers enter into a background relation in terms of our understandings of ourselves as attached and unattached, so too 'transitional' objects may recede into the background until such time as we are faced with a situation in which we feel insecure, at which time we may again call upon them, or something else, which engenders the same feeling. As Ben Highmore tells us, 'the sticky entanglements of substances and feelings, of matter and affect are central to our contact with the world' (Highmore 2010, 119).

Winnicott suggests that transitional objects should remain constant unless the child changes them, deciding for herself when and how the transition has taken place and thus when she is ready to move on. My sister's obvious distress at having her blanket taken away from her and washed is an illustration of the importance attached to this particular criterion of transitional objects. Transitional objects inform how the world feels. As such, the types of affordances, such as



chewability and huggability offered by toys or other transitional objects lay the foundation against which all other feelings of security or insecurity are measured. What we provide for infants and toddlers to play with, have the potential to configure their understandings of themselves in the world, including their orientation towards and stance in relation to the others in the world.

As transition is a constant, normal mode of existence, we may assume then, that the primary relations which infants form with transitional objects lays the ground for a relational ontology which is initially delineated by parental provision but ultimately comes to encompass the full range of experiences with objects in the world more generally.

### ***Playthings and Toys***

In the introduction to this chapter I mentioned a distinction which adults make between toys and playthings. Playthings are anything that a child is inclined to play with, while toys are the things that are designed and provided to children for the explicit purpose of play. While such a distinction may appear unimportant, the difference speaks to the ways in which adults' perceptions of, and consequent action towards, children including the things that we provide for them, technologically texture how the world may be for infants and toddlers. Toys have defined parameters of playability while playthings offer more open affordances.

All objects have the potential affordance of toyness for young children. Hence in the most *generic* sense of the term, toys are anything that a child or children are inclined to play with (Gorman n.d., 3). Children are very good at, and happy to find objects, and invent games (Winnicott 1942, 149). Anecdotally, some parents suggest that babies appear to get just as much, if not more, enjoyment out of the wrapping paper, as they do from the toy. My son, for instance, despite being surrounded by toys, got a lot of enjoyment from scrunching, tearing, chewing and shaking brightly coloured department store catalogues. On one of my observation visits, Emma placed an activity centre within reach of her eight month old twins. Neither Emily nor Kane showed any interest in it. Emily instead crawled towards a piece of fibrous cloth which was nearby. She picked up the fabric, shook it up

and down with one hand, entangled her fingers in it, separating the fibres, and ran the fibres across her face.



Figure 4.6 Emily's Piece of Fabric

Emma provided her children with many playthings, such as pieces of fabric and paper, that they chewed, waved in the air and screwed up as figure 4.6 illustrates. It seems to have made little difference to them whether it was a LeapPad, a piece of paper (figure 4.7), or both simultaneously that they played with; all were afforded equal status as playthings.



Figure 4.7 LeapPad or a Piece of Paper

In his *The Philosophy of Toys* Charles Baudelaire makes a similar distinction between toys and playthings contrasting what he calls ‘the barbaric...primitive toy’—which he equates with the playthings of the poor that are made as simply and cheaply as possible—with ‘scientific toys’(Baudelaire 1964, 3,4). He suggests that one problem with ‘scientific toys’ is their cost, but more significantly, unlike ‘primitive toys’ which allow for the creative exploration of the world, the ‘scientific toy’ defines its own potential delimiting conditions of possibility. Baudelaire here speaks of the distinction that I have made between toys and playthings where the ‘primitive toy’ or found object is a *plaything* and the ‘scientific toy’, is the technological facilitated *toy* designed specifically to be played with. The ‘scientific’ or technologically enabled toy with defined affordances also speaks to the amplificatory and reductive capacity of technologies generally (Ihde 1979). The distinction Baudelaire makes, however, is fraught when we reconsider Ihde’s definition of technology. Toys and playthings are both technologies in that they have a material element, which enter into human praxis (Ihde and Zaner 1977). The adult distinction between the two allows us to take more account of the relations ‘between the technologies and the humans who use, design, make or modify the technologies’ and how this plays out in the lives on infants and toddlers (Ihde 1993, 47). With this in mind, the term, ‘technologically augmented’ may be considered a misnomer as it rests on the assumption that scientific toys can ‘develop in the mind of a child the taste for marvellous and unexpected effects’ (Baudelaire 1964, 4) without taking account of the constraints to exploration and discovery they may also afford, or that children may just as readily experience discovery and wonder through the medium of playthings.

Although all technologies have the potential to both augment and diminish our experiences within the world, the term ‘technotoys’ as it is used here refers *only* to an augmentation of the toys through technological means. For example dolls which are not ‘augmented’ afford a range of imaginative play scenarios. However, more recently dolls have increasingly included technological augmentation to simulate more lifelikeness, for instance, ‘Baby Alive My Real

Baby' (figure 4.8) drinks eats and excretes, prescribing how it should be played with.



Figure 4.8 Baby Alive (Hasbro website)

Bergen and Hutchison (2010) tell us that elements of technological enhancement are increasingly incorporated into toys designed for very young children, and that this has been a cause of concern (Bergen et al. 2010). Accordingly they suggest that:

A common belief is that such technology-enhanced toys may affect socialization during play because no adult presence or interaction is needed. Another concern is that technology-enhanced toys may detract from using imagination during play, conjuring up images of children engaging in solitary play with few communication interactions and minimal elaborative play actions. The technology-enhanced toys also may detract from time young children spend playing with non-technology-enhanced toys and engaging with fundamental play with objects. (Bergen et al. 2010, 1-2)

Such claims stand in stark opposition to the understandings of technology forwarded in this thesis which insists that all toys and playthings are tools but that, dependent upon the material characteristics, the child's inclinations and corporeal development, they are experienced differently in different contexts. Both toys and playthings must be considered as technologies in that they self-evidently have a material element, and as Gorman tells us, they are 'tools of play' (Gorman n.d., 1) so they enter into a set of human praxes. Through habitual engagement toys and playthings become a part of the dynamic organization of

children's bodies, constraining or enabling children's actions within the world in ways that are specific to the affordances of the technology-child couplet—its chewability, throwability, stackability, rollability or any one of a multitude of possibilities dependent upon the particular child's predilection and capacity to act in terms of the maturity of his or her corporeal schema. The relation between toys and the humans who use them is thus multidimensional. Toys *and* playthings are many things simultaneously and consecutively, but undeniably, on Ihde's definition, they are technologies, and as he comments:

Technologies do not determine directions in any hard sense...while humans using technologies enter into interactive situations whenever they use even the simplest technology—and thus humans use and are used by that technology, and all such relations are interactive—the possible uses are always ambiguous and multistable. No designer can build in some single purpose or use, and thus there is no clear unidirectional determinability to even the simplest example (Ihde 2002, 131)

While any technology may be used in a multitude of intended and unintended ways, the material properties of more highly technologised toys have a predefined range of possibilities. This was particularly noticeable when I took a Little Touch™ LeapPad®, shown below, along on my visits.



Figure 4.9 LeapPad

The LeapPad® is designed specifically for guided interaction between caregiver, baby and toy. It is intended to enrich the baby's experience of being read to, and to encourage an interest in reading. Story books are installed onto the top of a tablet, and sensors on the tablet play music or words when pressed, dependent upon the particular properties of the software. Left to their own devices with the

toy though, Kane and Emily either crawled over the top of the LeapPad<sup>®</sup> or leant on it, sometimes producing results as intended by the manufacturer and other times not. Kane was also inclined to scrunch the pages.



Figure 4.10 Kane and Emily in the Presence of the LeapPad<sup>®</sup>

Seb and Molly, who were a couple of months older, were more interested in the box that the LeapPad<sup>®</sup> came in.



Figure 4.11 Molly and the LeapPad<sup>®</sup> Box





Figure 4.12 Seb and the LeapPad® Box

Cassie, who is older again, initially leant her whole weight onto it.



Figure 4.13 Cassie Leaning on the LeapPad®

After Philip showed her what to do, however, and with a little practice, she was able to, and enjoyed her independent play with it, illustrating a move from indiscriminate to discriminate action.



Figure 4.14 Cassie Playing with the LeapPad®

So, the affordance of any toy or plaything, despite its intended use, can be seen as an interplay between the particular characteristics of the object, children's predisposition to engage with it in a particular way, and their capacity to perform certain bodily movements (Heft 2003).

While the ways in which toys or playthings mediate very young children's existence are ambiguous, we should nevertheless remain mindful that their material specificity and the child's corporeal development are intertwined in an irreducible relation, which changes over time and with experience. For example, a block may afford diverse uses, yet its throwability or stackability, for instance, may vary dependent upon the child's ability to throw or stack, and its rollability may be diminished by its shape and texture, just as a rubber ball's rollability is enhanced by its shape and texture in concert with the surfaces on which it is used.

Furthermore, the playthings and toys provided for very young children's play are embedded in our specific historical and cultural understandings of what a child is and how they should be raised. As such, what we provide for our infants and toddlers in early twenty first century Western cultures reflect fine gradations of childhood development, speaking to our definitions of childhood, our aspirations for our children, our own social aspirations and the technological environment in which we raise children.



## *Toys as culture*

At this point, therefore, I will turn my attention from playthings, which are anything that infants and toddlers are inclined to play with, to toys as objects designed specifically as tools of play, to consider how our definitions of play and very young children are reflected in the types of toys we deem appropriate for them. By focusing on toys, so defined, this section will examine the ways in which toys intersect with the particular socio-cultural conditions of very young children's existence in contemporary Western cultures to mediate their experience in and of the world.

Through play, children learn culturally appropriate responses to situations which helps to facilitate their acceptance as socio-cultural beings, enabling them to communicate in ways which are not otherwise available to them, making self-directed cultural engagement possible. Merleau-Ponty's phenomenology allows us to consider that as the spread of *écart* widens, it is filled with the flesh of the world which, for very young children, is play. This spread ultimately comes to encompass the entirety of children's socio-equipmental-environment informing where and how children are situated in relation to the world. Thus as play theorist Johan Huizinga notes, play is not merely a function of physicality but also a socio-cultural phenomenon (Huizinga 1970, 18). For very young children, physicality is play, yet toys are designed to organize play in line with social expectations and ideals.

As historical artefacts toys can aid our understanding of the past, allowing us to become, at least empathetically closer, to the people who owned them (Gorman n.d., 10). Gorman suggests that, 'antique toys, as part of our human heritage, provide us with objects that allow us to reach across time and learn about our past' (Gorman n.d., 1). Initially in this section, I will explore the socio-historical significance of toys as material culture which convey our changing conceptions of childhood and inform our understanding of the historic specificity of the conditions of childhood. Analysing the historical significance of toys allows us to assess how the conditions of childhood have changed over time and relate such

changes to changing conceptions of childhood which coincide with wider cultural issues. As DeMause (1974) notes:

a society's child-rearing practices are not just one item in a list of cultural traits. They are the very condition for the transmission and development of all other cultural elements, and place definite limits on what can be achieved in all other spheres of history. (DeMause 1976, 3)

Museums of childhood provide a valuable resource for scholars of the history of childhood, adult representations of childhood and of the ways in which material culture shapes and is shaped by conceptions of childhood. In this respect, Prout reiterates the important role that material artefacts play in constructions of childhood suggesting that:

like adults, children's capacities are extended and supplemented by all kinds of material artefacts and technologies, which are also hybrids of nature and culture. This shapes the constitution of childhood and the experiences and actions of children. (Prout 2005, 4)

Hence the potential of material culture to allow us to gain insights into the lives of those who have used them, has for some time seen enduring connections emerge between scholars of history, and museum curators (Shepherd 1994).

The Western Australian Museum of Childhood is one such resource. On a visit to the museum, I was struck by the ways in which children's toys have changed over time in line with wider social changes which implicate the ways in which children can experience childhood in any given historical context. The 1950s in Australia, like the 1950s in the United States and England, was a time of great change. Consumerism, supported by almost full employment, low rates of inflation, consumer credit and mass marketing, 'warranted' the realisation of material happiness as an attainable ideal for many Australian wage-earners (Evans and Saunders 1992, 191). The increase in the standards of living had been a gradual process which began in the closing decade of the nineteenth century when rapid industrialisation increased the supply of materials, notably including toys (Kline 1998, 101). As Featherstone (1982) suggests:

the development of scientific management, with its new techniques of work organization and assembly line production, in the early decades of the 20<sup>th</sup> century, dramatically increased productive capacity. (Featherstone 1982, 19)

The increased productive capacity allowed manufacturers to exceed people's needs and forced them to increasingly segment and target their marketing to specific niches in the market. Targeted advertising thus became the means to generate desire for multiple goods that people had not needed or wanted (Featherstone 1982). Hence, Featherstone tells us that from the 1920s:

Advertising became the guardian of the new morality enticing individuals to participate in the consumption of commodities and experiences once restricted to the upper classes. (Featherstone 1982, 19)

Simultaneously, while aging became 'invisible', an increased focus on youth and the potential to market to it emerged (Featherstone 1982). Gary Cross suggests that by the mid-1980s Hasbro and Mattel had become the dominant players in the American toy industry and that:

Both giants helped to transform an industry which had primarily addressed the needs and values of parents into one that appealed directly to the longings and imaginations of children. (Cross 1997, 5)

Capitalising on the recognition of what has been termed the 'four-eyed, four-legged consumer' wherein mother and child act together as a purchaser-influencer whole (Coffey, Siegel, and Livingston 2006) a lucrative market in mass produced toys became an actuality. In Australia alone, the retail toy and games industry generated \$2 billion in revenue according to the 2011 *Toy, Game Retailing in Australia Market Research Report* (2011). The Hasbro website addresses the purchaser-influencer complex:

Take good care of your MY REAL BABY doll and she'll "play" with you, just like a real baby! This cute little baby doll just loves it when you wave your hand in front of her to tickle her tummy -- and she loves it so much, she'll even "giggle." She moves and "wiggles" to play with you and, with 50+ phrases, your adorable little one always has something to say. From "I love kisses!" to "Let's play together," your baby doll just loves to "chat" with you! When it's snack time and you "feed" her with her bottle accessory, she even "pees" or "poops." She'll need you to change her diaper and then kiss her and hold her close, just like a good mommy should! (Hasbro)

The language which is directed at children can only be accessed through a carer's capacity to read and speak. As such it reinforces parental desires to revisit their own childhood, *and* experience their children's childhood vicariously, while delivering a direct message to carers on how children should be treated.

Gorman tells us that handmade American folk toys, made from ‘wood, scraps of cloth, corncobs or whatever was at hand’ for their own use have remained a part of American heritage since colonial times and epitomize the skilled craft and imagination of the artisan (Gorman n.d., 6). On the trip to the Western Australian Museum of Childhood, it was particularly noticeable that with increased mass production, the materials from which toys were made changed from wood, metal, rag and ceramic, to primarily plastics and nylons around the 1950s. The British Toy & Hobby Association confirms that:

Before the commercial production of plastics in the 1950s, many children’s toys were made out of non-ferrous metals, particularly lead and tin. Lead is now known to be an accumulative poison so is completely unacceptable to use in the manufacture of toys. (The British Toy & Hobby Association, 6)

Hence in our contemporary Western societies, plastics have become the predominate toy making material since the 1950s due to their suitability for low cost mass production as well as their relative safety compared to wood and metal. The plasticization of toys has implications for the texture of the socio-equipmental-environment that very young children inhabit. Tom Fisher (2004) considers the physical and affective perceptions that consumers have of plastics, illuminating some aspects of our relationship with the materiality of plastic (Fisher 2004). Accordingly he states that:

Particular ‘invariant’ properties of plastics seem to be significant in reactions to them. Plastics have a ‘fleshy’ quality, shared by no other material – they can be ‘skin-like,’ and because of their mode of production they often are seamless. They are warm to the touch and ‘trauma’ to their surfaces is evident, but irrevocable. Their objective properties help us to conquer some aspects of our human nature, and to defend ourselves from external nature. Plastics are part of a ‘humanized’ nature with which consumers are familiar through constant sensual exploration of objects. (Fisher 2004, 30)

Notwithstanding Fisher’s questionable use of the term ‘objective’ which is inconsistent with a phenomenological understanding of perception and experience, the ‘invariant properties’ of material objects render them texturally significant in our experiencing of the world. Fisher refers to the ‘fleshy’ or ‘skin-like’ texture of two particular types of plastic: polyvinylchloride (PVC) and polyethylene (PE). Other words to describe these plastics include: ‘glossy’, ‘oily’, ‘fatty’, ‘buttery-smooth’, ‘slick’, and ‘sticky’ (Fisher 2004, 27). Of particular

significance is the description of plastic as ‘tacky’ which not only implicates our cultural understandings and aesthetic values in relation to plastics, but also refers to the sensorial dimension of ‘judgments of instrumental fitness’ and the ways in which plastics challenge margins reminding us of our own ‘mushy insides’, of sweat, blood and other bodily fluids (23). Hence Fischer found that plastics had the potential to elicit reactions of disgust, as well as a perceived potential to contaminate food, in particular, with their plasticity taste (28). Nonetheless, part of the move towards plastics, mainly polyethylenes, polycarbonates and vinyl was motivated by a desire for hygiene and safety; affording washability and even in some cases sterilisability. Most toys for very young children are bought by adults and the foremost considerations in influencing the decision to purchase are that they are safe, and sturdy enough to withstand the capacities of children in transition (The British Toy & Hobby Association).

Historically toys were not made for education but distraction (Gorman n.d., 6), yet in contemporary Western society,

Many parents like toys to be educational as well as fun. They like toys that will stimulate their children’s creativity and improve their knowledge, memory and concentration and encourage problem solving. (British Toy & Hobby Association, 3)

Just as old toys serve to convey us to an earlier period, so today’s toys offer us a mirror through which we may be able to arrive at a better understanding of our selves (Gorman n.d., 10). For instance, toys, like other objects, are not solely practical, but also convey messages about those who own or buy them as well as expressing cultural beliefs and values (Calvert 1998, 69). As such, they define us, not only to others but also to ourselves (69). Thus, as Calvert suggests, the link between cultural constructs of children and artefacts makes the examination of material objects a significant way of accessing social anxieties which are so emotionally laden as to resist discussion, and cultural beliefs which seem so basic that they are rarely openly expressed (68). The anxieties and cultural beliefs surrounding child rearing, despite being emotionally laden, have since the 1900s, become increasingly scrutinised by paediatricians, child psychologists, toy manufacturers and media commentators. The surveillance of childhood has

become manifest in increasing expectations that parents protect children from the corruptive influence, and simultaneously promote the educative potential of media (Tichi 1991). This is also the case in relation more broadly to mediating technologies.

A significant growth in childrearing ‘experts’ and manuals in the 1900s espoused a rational approach to childrearing, which Gary Cross has dubbed ‘scientific motherhood’ (Cross 1997, 121). This term signals a combination of the discourses ‘buying into’ childrearing practices and refers in the first instance to Samuel Taylor’s scientific management model which argued for the ‘one best way’ to manage businesses to realise profits, and maximise efficiency, based on methods of measurement and statistical standardisation (Taylor 1911). Taylor’s scientific management model has persisted and been of great influence in modernity. As Dimitrios Koumparoulis and Dionysios Solomos note:

the principles of scientific management have become a machine of universal efficiency since there was a widespread use of scientific management worldwide and beyond the scope of the workplace (Koumparoulis and Solomos 2012, 149)

‘Scientific motherhood’ thus came to represent the best and only way to ‘do childrearing’ based on statistics, experiment, measurement and hierarchical categorisation. Scientific parenting drew on an established tradition of developmental and educational psychology of Piaget and others ‘who believed in the educational potential of play’ (Ito 2009, 32). As Cross notes: ‘[a]s children were removed from the workforce, parents increasingly saw play as the core activity of childhood’ (Cross 1997, 123-4 cited in Ito 2009, 32). Hence a move toward more educational toys emerged consequent to changing conceptions of children as ‘the future’ in the early 20<sup>th</sup> century (Prout 2008, 25). Prout states that:

The advent of compulsory schooling in the industrializing societies of Europe and North America gave children as a social group unprecedented visibility. Much ‘biopolitical’ concern, to use Foucault’s term, was generated through research and discussion about the physical and mental state of what came to be seen as a national resource for international military and economic competition. Children became a target for investment and were seen as the ‘children of the nation’. (Prout 2008, 25)

This type of attitude led to a distinction between ‘high’ toys for learning and ‘low’ toys for distraction (Ito 2009, 33). Hence, as Ellen Seiter (1993) argues, educational toys have more to do with the social ambition of parents than any goal of providing ‘healthy amusement’ for children (Seiter 1993, 194). She goes on to suggest that:

toys incite in parents strong feelings that are a tangle of nostalgia and generational and class values. Attitudes toward toys are social and strongly tied to educational background and cultural capital. Many parents believe that what is given to children in terms of material culture is an important communication about the future (Seiter 1993, 193).

As such, Seiter (1993) contends that one of the most contentious issues in relation to toys is the difference between educational or classic toys targeted to the social aspirations of parents, and those which are mass-marketed promotional toys designed to catch the attention of children (Seiter 1993, 193). Contentiously, Seiter maintains that what the toy industry call promotional toys fill the shelves of stores such as Toys ‘R’ Us and educational toys are more likely to be found in boutique toy stores. To suggest such a dichotomy, however overlooks that many of the toys from educational niche manufacturers, such as Fisher Price®, Lamaze, Playskool and Little Tykes®, are increasingly available in stores like Big W, Kmart, and significantly Toys “R” Us, rather than being confined to boutique toy stores, which are a rarity in the Australian retail market.

Targeting parental aspirations for their children through the potential educational benefits of toys has established a niche market which has allowed manufacturers such as Fisher-Price®, Little Tykes®, Playskool and Lamaze to increasingly segment the market to target specific developmental levels and learning outcomes as the following screen grabs from the Fisher-Price® and Lamaze Toys websites illustrate.

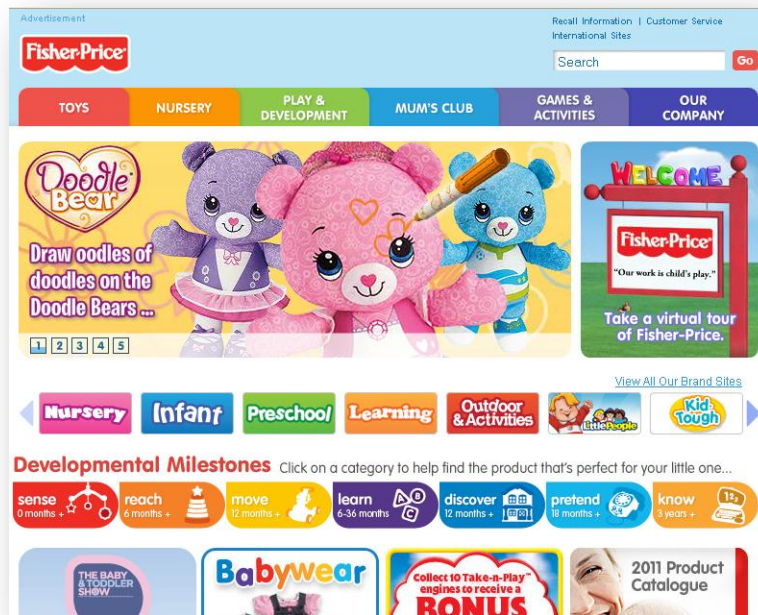


Figure 4.15 Screenshot of Fisher Price® Webpage (Fisher Price® website)

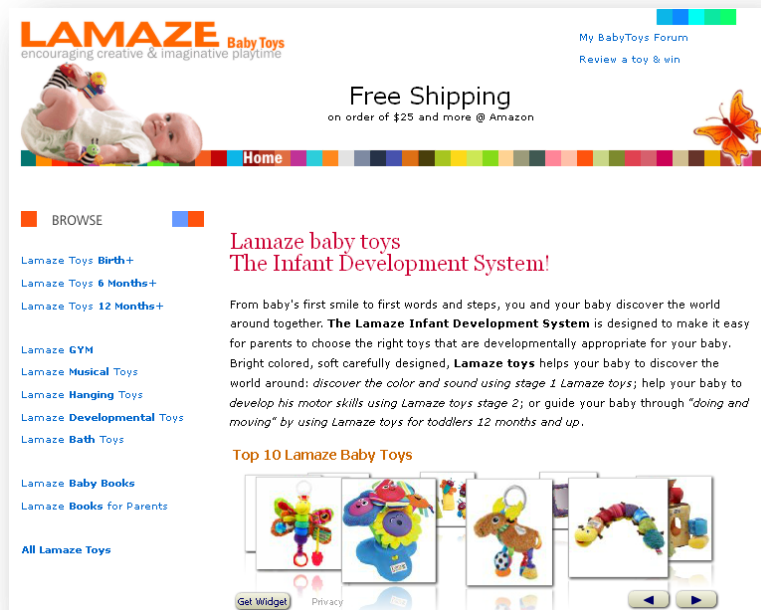


Figure 4.16 Screenshot of Lamaze Webpage (Lamaze website)

The brainchild of child developmental specialists Jerome and Dorothy Singer, Lamaze toys are designed in conjunction with Lamaze™ International, a leading childbirth and early parenting organization in the United States . Like Fisher-Price®, the Lamaze Toys Infant Development System offers to guide parents through four phases of infant development, enabling them to choose toys which



‘satisfy baby’s increasing energy levels, challenge maturing skills, and captivate the imagination’ further reinforcing the notion of scientific parenting. The promotional piece at geniusbabies.com states that from the early weeks through the toddler years Lamaze Toys have a toy that is ‘just right’ to ‘inspire babies to reach new developmental milestones’.

As well as the plethora of websites which tell the computer savvy parent the features of their toys and the value of the Lamaze Infant Development System the packaging of their toys also serves as a promotional tool which speaks to parental aspirations, potentially shaping an aspect of very young children’s socio-equipmental-environment.



Figure 4.17 Lamaze Forest Friends Gift Pack



Figure 4.18 Developmental Claims on Lamaze Packaging

The ‘Infant Development System’ segments infancy into three stages as can be seen in figures 4.16 and 4.18. Their website tells us that ‘educational toys’ for infants in stage one—from birth—‘are especially created to introduce your baby to the world of colors and sounds’ (Lamaze 2010c). In stage two:

Toys for babies 6 months and up from Lamaze (Lamaze Infant Development System Stage 2 toys) offer interesting shapes to grasp, fun sounds to hear, and intriguing textures to touch and chew. These toys help baby to develop his (sic) motor skills, hand eye coordination, and build confidence. (Lamaze 2010a)

In stage three:

Baby plays in new ways now that she (sic) can sit alone. She is learning the concept of ‘object permanence’ – what’s hidden isn’t necessarily gone.

Toys for babies 9 months and up from Lamaze (Lamaze Infant Development System Stage 3 toys) include items to sort, stack and arrange. Together, you and baby can use them to explore shapes, spatial relationships, sounds and to sharpen motor skills. (Lamaze 2010b)

The marketing effort which aims to capitalize on parental desires cater to the perceived developmental benefits for their children is accentuated by a panel on the side of the box that informs them of the potential developmental benefits that purchasing such a toy will have for their baby with the indirect inducement that if they are not bought, then parents, or other adult consumers, are not doing the best for their baby.

Fisher Price<sup>®</sup> is another such toy manufacturer which targets parental aspirations for their infants using developmental milestones as a means of segmenting their market. Founded in 1930, Fisher Price<sup>®</sup> is a well-established manufacturer of toys which its website claims is ‘the most trusted name in quality toys’. Its stated philosophy is one which:

Believe[s] in the potential of children and in the importance of a supportive environment in which they can grow, learn, and get the best possible start in life. (Fisher-Price.com)

Fisher Price<sup>®</sup> toys are developed, manufactured and marketed relying on understandings gained from developmental psychology which holds that very

young children fall into relatively distinct stages of development characterised by the acquisition of skills milestones and learning needs.



Figure 4.19 Fisher Price® Take-Along Play Blanket

The ‘Take-Along Play Blanket’ (figure 4.19 and 4.20) is designed for children from birth upwards. It features an ‘extra-large, super-soft fleece blanket’ with plastic teethers and rattles attached.



Figure 4.20 Side of Take-Along Play Blanket Package

The front of the box states that the ‘Take-Along Play Blanket’ develops motor skills as well as comfort and security, the latter of which, suggests a reference to Winnicott’s understanding of a transitional object. It is also ‘soft and cuddly’, and features a vinyl zebra head, again speaking to the illusion of liveness that Winnicott suggests is necessary for transitional objects. The zebra head becomes a complete wipe-clean carry bag when the blanket is folded away. The warm ‘skin-like’ texture of the plastic zebra head, rattles and teethingers combined with the soft, fluffy feel of the blanket give warmth and to some, the experience of carers’ bodies. The side panel of the box (figure 4.20) elaborates on the developmental benefits that Fisher Price® attribute to the blanket.

- Extra-large, super-soft fleece blanket enhances baby’s comfort & security
- Butterfly teethingers & birdie rattle keep baby busy & boost fine motor skills
- High-contrast & touchable textures: Stimulate baby’s senses.

The ‘Take-along Play blanket’ satisfies Winnicott’s prescription for transitional objects, due to its textural characteristics, its transportability, the noises it can make, and its face to further simulate liveness. It affords hug-ability, chew-ability, rattle-ability, shake-ability, drag-around-ability, throw-ability, hit-on-something-ability, wrap-up-in-ability, lie-on-ability and lie-under-ability. Fisher Price® ascribe specific developmental benefits for babies from birth. The contrasting colours of the blanket ‘stimulate baby’s senses’ and the density, texture and human faceness of dolls ‘encourage early role play’.



Figure 4.21 Apptivity Monkey

The 'Apptivity™ Monkey' (figure 4.21) which comes complete with free monthly 'apps' encompasses both sensory and cognitive development, teaching '[l]etters, A-Z, [n]umbers & counting', '[s]hapes & [c]olours' and '[a]nimal sounds' as can be seen above. By incorporating 'songs, sounds & fun phrases' and bright colours 'enhance[s] sensory development'. Fisher Price® claim that the device's touch screen renders it '[e]asy to use' encouraging 'eye-hand coordination & fine motor skills,' and that the toy which '[r]esponds to baby's touch' teaches the user about 'cause & effect'. It is also the forerunner of other touch screens, and screens in general, which as will be discussed in the upcoming chapters, enabling children's early learning of how to be-with-screens.

These toys are designed specifically for infants, who are not yet cognitively fully developed and could just as easily come to understand themselves as discrete beings through any number of other material objects. They also speak to the assumption that babies need multi-sensory stimulation but more tacitly, it implies that the toy is necessary for the child's wellbeing and development. Again this speaks to parental aspirations to accelerate their baby's development through multi-sensory stimulation which Lamaze and Fisher Price® claim can be easily achieved through play with these toys. The Baby Alive My Real Baby referred to earlier is another example of the ways in which toys are marketed to the parent-child complex but which speaks to parental aspirations and prevailing notions of the ways in which children should be treated. This is particularly the case with the final sentence being, 'She'll need you to change her diaper and then kiss her and hold her close, just like a good mommy should!' which resonates with Cross' notion of scientific parenting (Cross 1997).

The ability of toys to act as powerful media of communication has been taken up in marketing, to communicate, among other things, the appeal of consumerism as an expression of love (Varney 2002, 1). While, as Varney notes, the messages conveyed in advertising and marketing toys are not closed, 'toys, like other media, often privilege particular readings [which are] favourable to the marketplace' (Varney 2002, 1). Hence, she tells us that:

Each toy makes its own grab for attention, often promising love or one of its components, but usually working within a framework of short-term gratification, infatuation, obsession, the yearn to possess and elicitation of guilt. (Varney 2002, 3)

Toys mediate very young children's experiences within the world by configuring or engineering what constitutes appropriate play for children of a particular age. Since Playthings *and* toys that, with repetitive use, enter into children's corporeal schemas, informing how children are oriented towards the world, including what they can and cannot experience, we must surely concede that all playthings are tools for learning. Moreover, as transitional objects, toys offer a consolatory presence which aids in the transition from total dependence to relative independence, and from indeterminate to intentional experience, in-forming their growing understanding of themselves as discrete entities with-in-the-world along with others who are more or less like them, but 'over there'. While it could be argued that the proliferation of mass produced and consumed toys which configure play in contemporary Western societies may lead to an homogenisation of childhood experiences, this does not take account of the unintentional trajectories, or the flexible affordances furnished to infants and toddlers by any type of plaything, or that each child has a unique relation with particular playthings. As such, regardless of the foregoing critique of the potential for learning afforded by toys which are used as a marketing strategy, aimed at parental aspirations for their child/ren, the children themselves may experience them very differently. For example, both the Busy Baby Mirror and the Moooo-sical cow are chewable, throwable, sit-onable, huggable, bang-on-the-floorable, so despite the manufacturers, designers and parents intentions for the toy, what children make of them is fluid and dynamic, changing with children's inclinations and developing corporeality.

### ***Whoever has the Most Toys Wins! Transmediatic Toys***

As we move toward the conclusion of this chapter on toys and towards the final chapters on television and interactive digital media, it is timely to consider the transmedia phenomenon as it relates to toys as a prelude to more conventionally recognised media. As Ito (2009) tells us, with the advent and rise of television in the late 1950s:

cultural and social dynamics changed quite dramatically, and the Victorian parental orientation toward childhood discipline and intellectual development was overshadowed by the influence of fast-paced, commercial, fantasy-based children's popular culture. Attitudes toward restraint and denial in children's consumption eroded in the face of television and the ubiquity of children's popular culture. Educational toys were marginalized in an era of novelty toys and discount toy retailers, though they were still an important niche market, particularly for pre-schoolers. (Ito 2009, 33)

The foregoing discussion of Lamaze and Fisher-Price® is representative of persisting Victorian bourgeois attitudes to very young children in the face of a changing children's cultural landscape. Hence as Ito suggests:

As commercial children's culture has taken hold, however, many families have been part of a countervailing tide of resistance to children's commercial culture. A large volume of publications aimed at the educated middle-class argues against children's exposure to media and licensed commodities, ranging from conservative calls to family values to left-wing attacks on negative stereotypes in commercial media. (Ito 2009, 33)

The toyscape in contemporary Western cultures is characterised by the transmedia phenomenon, where characters from one media form, say television or movies, also manifest as toys, clothes and a number of similarly themed products, adding another dimension to the mediating capacity of toys. Marsha Kinder (1991) examines the programming and advertising conventions of television and spin-off products, which rely on intertextuality for commercial success. She goes on to explain that networks of intertextuality constructed around a figure or a group of figures from popular culture can manifest in entertainment supersystems (Kinder 1991). In addition, to constitute a media/commercial supersystem these networks of intertextuality

must cut across several modes of image production; must appeal to diverse generations, classes, and ethnic subcultures, who in turn are targeted with diverse strategies; must foster 'collectibility' through a proliferation of related products; and must undergo a sudden increase in commodification, the success of which reflexively becomes a 'media event' that dramatically accelerates the growth curve of the system's commercial success. (Kinder 1991, 122)

Intertextuality in this instance, refers to an individual text, whether that be a movie, toy, article of clothing, or whatever the case may be, the meaning of which may only be understood in reference to a background of other texts on the same theme (Kinder 1991, 2). While not referring to transmedia intertextuality *per sé*,

Varney (2002) reinforces the notion in the following quote which relates to mass marketed toys, which she notes:

act as powerful media, transmitting messages, offering interpretations and interacting with other toys and commodities, particularly in terms of communicating the appeals and joys of consumerism on which their existence so heavily relies (Varney 2002)

Cross suggests that the transmedia phenomenon, where there is a crossover between toys and other media, can be traced back to the 1930s ‘with the advent of Mickey Mouse and Shirley Temple dolls’ (Cross 1997, 121). Perhaps the most recognizable and earliest example of this type of phenomenon, is the Disney phenomenon, where movies, television shows, books, clothing, accessories and toys modelled on Mickey Mouse reinforce each other to ensure the commercial success of the Mickey Mouse brand.

More recently the simultaneous release of a children’s movie, toys in fast food packages, clothing, DVDs and music videos, and other licensed merchandise offers a readily recognizable instance of transmediatic proliferation. Linda and Philip, speak to the effectiveness of transmedia intertextuality in target marketing to children.

Linda: the marketing that those companies have is just amazing; the way that they can get kids

Linda: Yeah, ‘cause like Sara just wants the toy

Philip: Oh yeah, definitely

Linda: When you drive through the drive through and she’s in the back seat going ‘I want the toy, don’t forget the toys mum’

Philip: Yeah, we’re sitting there all stressed out, two kids in the back, trying to figure out what we want, you know, I’ll sit there and take a minute to decide and then Linda’ll take another couple of minutes and Sara’ll sit there the whole time ‘I want the toy, I want the toy, I want the toy, I want the toy’

Linda: Those toys, that was the smartest thing they ever did I think, she doesn’t care about the cheeseburger and the chips, she just wants the toy. (Excerpt from interview with Linda and Philip 17/7/2005)

Even very young children may recognize the characters around which toys have been promoted from story books, cartoons or other forms of media exposure, and



even if they do not, point-of-sale merchandising offers an opportunity to inspire such recognition (Seiter 1993).

It appears to be the case that consumer goods do not communicate well when they exist in isolation or in heterogeneous groups. The meaning of a good is best (and sometimes only) communicated when this good is surrounded by a complement of goods that carry the same significance. Within this complement, there is sufficient redundancy to allow the observer to identify the meaning of the good. In other words, the symbolic properties of material culture are such that things must mean together if they are to mean at all...It is the cultural, meaningful aspects of goods that help to give them their secret harmonies. (McCracken 1987, 250 cited in Seiter 1993, 204)

Jenkins suggests that the significance of transmedia phenomena rests in transmedia storytelling which unfolds across a number of media, which add to our accumulative understanding of the world (Jenkins 2006, 293). He suggests that ‘transmedia storytelling is the act of world making’ or the creation of a fictional world which is detailed enough to allow a number of different stories to emerge but consistent enough that all of the elements and stories fit together to create a cohesive whole (Jenkins 2006, 21, 294).

Ito prefers the term ‘media mixes’ to transmedia, to describe how ‘children’s media relies on a synergistic relationship between multiple media formats’ (Ito 2008, 7). Ito’s ‘media mixes’, are analogous to Jenkins’ notion of world making where a whole world of collected fictional characters from various media forms can be collected. The concept of world making has particular poignancy in relation to very young children and transmedia collectability. Very young children are able to participate in world making through physically having and owning transmedia toys, clothing, curtains, bedding and furniture. Each item that the child owns contributes to a sense of belonging to their wider socio-environmental-environment.

The Pooh phenomenon typifies Kinder’s transmedia intertext and Jenkins’ world making in that it cuts across several modes of production. A young friend of mine has Pooh stuffed animals, Pooh DVDs and videos, Pooh shoes and Pooh clothing and I, myself, have Pooh pyjamas, a Pooh screensaver, Pooh document folders and a Pooh pen. A quick internet search also reveals that Pooh branded products

come in many different forms, including: pink satin boxer shorts, a cigarette case and slash fiction. Now, it is entirely possible to be woken up by one or more Pooh alarm clocks, climb out from between Pooh sheets and from under a Pooh doona. Babies can wear Pooh nappies and sleep suits and toddlers can wear Pooh pyjamas. Once out of bed, there are Pooh slippers, Pooh dressing gowns, Pooh pictures, wall hangings and curtains, Pooh lamps, numerous Pooh toys, Pooh dummies with a Pooh clip, Pooh baby bottles, Pooh toothpaste, Pooh bowls and cutlery, Pooh mugs, Pooh videos and DVDs, not to mention Pooh on broadcast television, Pooh books and Little Touch LeapPads have Pooh interactive books, Pooh video games, Pooh websites, Pooh furniture and a vast array of other Pooh clothing and footwear. Literally, potentially a world of Pooh! This transmedia enabled microworld constitutes a facilitating environment of recognition and familiarity.

Pooh's apparent 'liveness' makes him an ideal transitional object. Much as 'Baby's 1<sup>st</sup> Doll' offers warmth, has a face, arms, legs and a torso, is able to withstand the variable and diverse uses a very young child may subject it to, and is carryable by infants and toddlers themselves, they may constitute a child's first 'not-me possessions'. Gorman tells us that even in our own lifetime, stumbling across or touching an old toy takes us back to special moments, allowing us to re-experience feelings, thoughts and times which have been significant in our lives (Gorman n.d., 10-11). Gorman's suggestion resonates with the notion that transitional objects remain significant throughout life. Although rather nostalgically, Gorman adds that:

As personal treasures, toys represent an innocent and simple yesterday and are a bridge from our not too long ago childhood to today. And "once you pass its borders, you ne'er return again..." except in that corner of your memory (Gorman n.d., 11).

Despite his appeal to the myth of the innocent child and a sentimental longing for a better time, that may or may not ever have existed (Jenkins 1999), Gorman not only speaks to the enduring affect often associated with transitional objects, but also to the cross-generational appeal of transmedia phenomena. Cassie, for example, has Pooh clothing because Linda likes it. Likewise Seb, who is not

really a Pooh fan—he prefers Bob the Builder—has a Pooh couch, a Pooh ball and a Pooh plate; Jake has a Pooh beanie pal and Cassie has Pooh clothing. In Seb’s case, many of his toys and clothing were handed down from friends of Kate’s which again speaks to the transmedia condition of cross generational appeal but also to the ways in which parental attitudes and tastes configure the ways in which infants and toddlers may experience the world. Pooh and other transmedia toys appeal to our own nostalgic attachment to the stories from our own childhood, which has benefits for marketers in that when infants and babies are too young to specifically request the items, adults are motivated to set up at least an initial transmedia world which can be taken up as children are old enough to build on that world themselves.

## ***Conclusion***

This chapter has argued that playthings and toys, as particular types of material objects, in-form children’s being-with-in-the-world in ways that are particular to cultural mores, and historical periods. While relying on the underpinnings of an extension of Merleau-Pontian phenomenology and Winnicottian psychoanalysis, this chapter has moved into the socio-historical realm which links to consumer culture and child rearing artefacts, to suggest that the types of material objects which enter into infants’ and toddlers’ perceptual fields are indicative of adult values and aspirations for their babies’ development and conceptions of childhood.

Initially play was defined as a complex which in-forms children’s maturing corporeal schemas. The affective notion was explored by considering toys as transitional objects which fill the potential space between carer and child, fleshing out the world and enabling the transition from indeterminate to intentional experiences with particular textural qualities that mimic the maternal provision.

Early in the chapter, I made the distinction between playthings, as anything that children are inclined to play with, and toys, which I defined as material objects which are specifically designed for children to play with. This was done to aid our understanding of the socio-equipmental environment that very young children

inhabit in contemporary Western societies, where primarily plastic toys are designed and produced not only to amuse children but also to target parental aspirations for learning potential and a ‘smart child’. In that section I argued that regardless of whether children are inclined to play with a plaything or a toy, it is a learning experience that informs how the child may be in the world. Furthermore, what children learn from playing with any plaything is fluid and dynamic in that affordances flow from one thing to another, and change with time.

The specificities of the play environment for children in contemporary Western societies in relation to the transmedia phenomenon was ultimately reviewed to suggest that media intertextuality configure very young children’s play while simultaneously allowing for world making, both at the parental level and in informing infants’ and toddlers’ understandings of the world.

Toys, like other mediating technologies, have the potential to shape very young children’s lived existence in specific ways, reinforcing a schema of past-present-future informing all subsequent activity within the world. In their various forms, toys span developmental stages, dynamically changing throughout life and as such, their role as transitional objects can be paralleled with our own transition from one life stage to another. While primary objects and microenvironments also span the entire development process, toys are perhaps most notable at the time of life when children are starting to understand the self-other distinction. As such the role of toys in facilitating several types of transition are particularly pronounced. Since early childhood experience is critical in informing the individual and intersubjective life that follows it, and toys are an integral part of infants’ and toddlers’ corporeal schemas then, likewise, one must accept that toys are also a fundamental part of us, an aspect of our being.

In the upcoming chapters on television and interactive media I will argue that these broad categories embody unique modes of engagement which have partially been ‘prepared’ for in toy play. As the transmedia phenomenon suggests, clear-cut distinctions between one form of media and another can be problematic, yet a toy phone, a land line and a mobile phone are ontologically significant in different ways. I will explore this in greater detail in the final chapter on interactive digital

media, but prior to that, we will turn our attention to television, which is perhaps the most hotly debated, and arguably the predominant medium in the lives of infants and toddlers.



## *Chapter 5*

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# *Screening Infants and Toddlers: The Ontological Significance of Television in the Lives of Very Young Children*





## *Screening Infants and Toddlers: The Ontological Significance of Television in the Lives of Very Young Children*

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Since its inception, television has been heavily embroiled in debates *vis a vis* how it intersects with children's development. The form of the criticisms leveled at television and its hybrid technologies—video cassette recorders (VCRs), console games and digital video discs (DVDs), cable and satellite TV and media players—are as diverse as the technologies themselves, and range from concerns over the amount of time older children spend engaged with them<sup>6</sup>, arguably to the detriment of other activities, to the perceived appropriateness or otherwise of the messages they introduce into the nostalgically perceived sacrosanctity of the home. Yet, despite over fifty years of research into television there has been surprisingly little investigation into how any of the divergent conclusions arrived at, may translate to infants and toddlers. This may be attributed in large part to the textual or content based methods of analysis which predominate in the field. Such methods may lead some to conclude that since pre-linguistic and newly linguistic children may not understand the messages within the content of television programming in the same way as older children that television is of little or no relevance to infants and toddlers. As I will argue, such deficit models frame very young children's understandings of television in terms of 'lack'. We need to recognize that the content of media messages is only one aspect of infants' and toddlers' experiences of television and that the relation between very young children and television needs to be understood in phenomenological terms; in relation to the materiality of television, its potential to attract and hold attention, and its capacity to reconfigure time and space in the socio-equipmental environment.

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<sup>6</sup> 2009 figures from the Australian Bureau of Statistics indicated that in of 97% of children over the age of five had watched television, videos or DVDs in the two weeks prior to being interviewed. This was compared with 48% who had been involved with arts and crafts. A further 79% had accessed the internet and 31% owned mobile phones. According to this data children spent on average '17 hours watching television, DVDs and videos, and 11 hours doing other screen based activities' (2009a)

By focusing primarily on media messages, much of the research which has been done in relation to children and television does not allow us to take adequate account of the specificity of the medium to which we refer (Weber 1996). As such, content analyses alone do not consider the integral role that television plays in infants' and toddlers' experiences of everyday life in the early twenty first century. Samuel Weber thus observes that the prevailing tradition of textual analysis may just as readily refer to literature as it does to television, 'leaving the specificity of the televisual medium itself unaddressed' (Weber 1996, 108). Preceding Weber, Roger Silverstone (1994) suggests that by focusing on content, researchers:

fail adequately to come to terms with the significance of the media in general, and television in particular...The everyday escapes, and in that escape television escapes too. (Silverstone 1994, 3)

Consequently, what little research has been undertaken into the intersection between infants, toddlers and television, does not allow for the ways in which young children's experiences within the world are shaped in medium specific ways through the incorporation of television into the patterns and rituals of everyday life (Ihde 1990).

There are, however, several examples of analyses *vis a vis* children and media that are noteworthy in their focus on the materiality, rather than the content of television. Lyn Spigel (Spigel 1992b), and Cecelia Tichi (Tichi 1991) for example, both look at the organization of domestic space around television, yielding useful insights into the spatio-temporal arrangements necessitated and facilitated by the introduction of a television set into domestic spaces in the post-war era, reconfiguring the activity and material organization of homes. Adopting a phenomenological approach, Paddy Scannell (Scannell 1996), provides another example which speaks to the everydayness of television as contributing to both the foreground and background of our experiences in the world, a position which resonates with Ihde's texturing of everyday life through ritualistic praxes (Ihde 1990). While Scannell (1996) does not deal specifically with children, his approach gives us an insight into the domestic dynamics which mediate children's

interpersonal, spatial and temporal existence. Roger Silverstone (Silverstone 1994)1994) offers arguably the most thoroughgoing treatment of the ontological significance of television in everyday life, as well as how it functions as a transitional object, which fleshes out the world, facilitating infants' growing recognition of themselves as discrete entities in the world. Such analyses which focus on the role television plays in texturing our experiences of the world provide valuable insights that further our understanding of the ontological significance of television in the lives of infants and toddlers, which are not reducible to adult modes of understanding. These perspectives will inform this chapter which considers the ways in which television, as a material object, has changed over time, and how these changes intersect with the changing ontology of everyday life.

Prior to moving on to my argument proper, I will recap some of the major themes which have emerged in this thesis thus far, and foreground how these concepts will be put to use in the upcoming chapter. As we have seen in previous chapters even the most fundamental technologies fill the chiasm which develops between primary caregivers and infants, fleshing out babies' worlds in the process of maturation and mediating their experiences of the world. In many instances children experience the world through technologies, or at a distance; where the technology intervenes between the experiencer and the experienced. Such interventions therefore, change the texture of the world for very young children as well as having an impact on their potential embodied engagement with other human and non-human others with which children share their domestic environment.

In chapter one I offered a theoretical approach which draws on phenomenology, psychoanalysis and phenomenology of technology, with an emphasis on the concepts of embodiment, materiality, affordance, transitional objects and facilitating/holding spaces. Recognizing that we do not move from one existential or ontological state to another, but rather are always involved in a process of becoming, I argued for the an acknowledgement of the continuity of existence and

experience, such that all tools constrain and enable our ways being in the world in some way or other. This chapter will further suggest that very young children, like adults, exist in relation to television but that this relation is dynamic, oscillating between types of relations which are interdependent with our socio-equipmental environments and our own corporeality. The physical properties of mediating technologies, in conjunction with children's maturing embodiment, afford infants and toddlers, who are in the process of learning the rules of engagement with their socio-equipmental environments, a range of different interactional opportunities from those afforded adults or older children. Hence, infants and toddlers experience mediating technologies *and* media differently to adults as they develop an understanding of what the technologies are, and what it means to co-exist with them.

The discussion of microenvironments in chapter two primarily relied on a combination of the phenomenological concept of being-in-the-world (Merleau-Ponty 1962), Winnicott's notion of the facilitating environment (Winnicott 1963) and Sofia's rendering of container technologies (Sofia 2000). This was done to emphasise the importance of spatiality and the primacy of embodied existence in space which is always-already embedded in the socio-equipmental environment particular to specific times and places. These concepts will again be used in this chapter to signal the importance of domestic spatial arrangements around televisions and how very young children may experience television within the home. The theme of facilitating microenvironments will be resumed in this chapter to suggest that television is a particular type of container technology or holding space, that not only provides a context or background from which other experience and knowledge grow, but which also holds content and gradually realized potentials of relevance and action. In chapter three, I extended the notion of being-in-the-world to being-with-in-the-world to elaborate on the primordial intersubjectivity that allows us to understand the importance of the relations that we have with the human and non-human others who are, like us, part of the universal flesh of the world. I suggested, like Wynn (1997) that the holding environment may usefully be considered as a chiasmic relationship, a notion

which acknowledges mutual inclination and reversibility, and allows us to consider that not only does television act upon children, but that children also act upon television. By reinterpreting the holding environment as a chiasmic relationship I elaborated on the ontological significance of material objects which inform our perception and experience in and of the world. The importance of transitional objects and their capacity to facilitate infants' and toddlers' exploratory activities in the world will again be taken up in this chapter to argue that television acts, in some ways, as a transitional object.

We are now in a position to reinterpret television in the model adopted thus far in this thesis. I will therefore, in this chapter, expand the theoretical perspectives as applied to more basic technologies discussed in the previous chapters, rather than adopting the traditional, content based findings about older children and extrapolating these to younger children. This chapter will be punctuated by anecdotal examples based on observations of families in relation to television. Initially I will offer a phenomenological history of television to suggest that the changing materiality of television has co-opted time and space in ways which are particular to the materiality of the device in specific points in history. I will later provide a phenomenological account of screens and their ontological and perceptual significance in the lives of very young children. I will also suggest that television is part of a trajectory of holding and safety which begins with such technologies as clothing, highchairs and cots and moves towards interactive digital technologies. In doing so, the notion of attention will be discussed, not only in terms of how very young children learn to attend, but also as to how television potentially attracts and holds the attention of older children and adults, as infants' and toddlers' significant others.

By considering distraction as very young children's way of being, I will discuss how background television gradually becomes foreground not only as children's understanding of media messages grows, but also as children learn habits of attention and being-with-television. Yet, I will argue that the television-child relation is not linear or unidirectional—from background to foreground—but

rather is dynamic and oscillates between embodiment, hermeneutic and background relations (Ihde 1979). In embodiment relations, through repeated use, technologies become a part of our corporeal schema and we experience the world *through* them. This was illustrated in the example of the baby walker where the walker and the baby combine in a baby-walker complex to act as one entity, affording regulated mobility and reach without which the baby's immature corporeality would not achieve (Ihde 1979, 6-11). Alterity, or hermeneutic relations, are those where the technology is regarded as 'other', or as the focal point of experiencing. In such cases not only does the technology pass from background to foreground, as in the case of a cot, but messages can be 'read off' them as with a television (Ihde 1979, 11-13). Background relations are those where the technology, functions in the periphery of experience, barely noticed as liminal embodiment relation. An example of this is where television acts as 'moving wallpaper' or the backdrop or context of other activities (Ihde 1979, 13-14).

Consequently, I will offer a critical analysis of television, not only as a conveyor of positive or negative content, but rather, as a significant non-human other in the lives of very young children. In doing so I will revisit the concept of the holding environment, discussed at length in chapter three, in relation to the holding power of television and as a technology of containment. I will argue that television constitutes a facilitating microenvironment which very young children inhabit by virtue of their corporeal engagement with the mediating potential affordances of television. Simultaneously this chapter will consider how television as a material object, affords different things to very young children than it does to adults and older children. Accordingly I will examine the role of television as a transitional object, functioning in some of the same ways as toys do, to facilitate children's growing understanding of their contiguous separateness and intersubjectivity in the world. The concept of television's holding power will be used to revisit the notion of television as a holding space or facilitating microenvironment, before concluding that television mediates infants' and toddlers' lifeworlds, performing a role similar to other, more basic technologies in their lives. That is, that television

is one among many technologies along a continuum which gradually unfolds in response to our growing relative independence.

In what follows I will attempt to fill at least some of the gaps that exist in research into children and the media, principally television. In particular, I will propose that we might gain a greater understanding of the intersection between very young children and television by concentrating on the ways in which television intercedes in material, corporeal ways into infants' and toddlers' experiences of their lifeworlds, rather than focusing solely on content. While very young children may or may not understand media content in terms of the messages it conveys, I suggest that they do understand it with an understanding that comes from experience. That is, they primarily experience and come to understand television in its materiality at the level of embodiment; they understand it as they understand the people in their environments, as they understand the home in which they live, as they understand their playpen, and as they understand their playthings. They understand it at the level of their lived experience *in relation* to the materiality of their socio-equipmental-environment, specifically from their situatedness in relation to it and their capacity to act upon and be acted upon by it. Hence, despite the importance of media content analyses, they serve to situate infants and toddlers understanding of television in terms of 'lack' and potential irrelevance; in contrast I argue that television has paramount significance in terms of infants' and toddlers' ontology.

By centralizing the body as a fundamental corporeality Merleau-Ponty's phenomenology offers an account of the ways in which bodies are flexibly altered in relation to tools and technologies. To suggest that media technologies such as television are 'out there' to corrupt children is an over simplification of the complex relation between children's corporeality and their socio-equipmental-environment (Weiss 1999). Thus, as Richardson (2003) argues, what is needed is an account of how television is corporealised in its medium specificity (Richardson 2003, 166). In other words, we need to understand 'the way in which

TV impinges on [very young children's] corporeal schemas and vice versa, shaping and shaped by [their] perception and experience of the medium' (166).

### ***Television as Transitional Object***

As elaborated in the foregoing chapters, Winnicott pays particular attention to the importance of transitional objects in negotiating the gradual move from dependence to relative independence. Drawing on this concept, in what follows I will suggest that television and video technologies perform many of the same functions as transitional objects. As very young children do not initially experience themselves as *apart from* the world, but rather as *a part of* the world, transitional objects facilitate the transition which ultimately allows them to recognize themselves as discrete entities with-in the world. As previously mentioned, in the primary state of total dependence infants 'do not experience themselves in their separateness and live just as readily in others as they do in themselves' (Merleau-Ponty 1964 (b), 119). As the child matures, the unhurried spreading of the chiasm, between carer and baby enables the flesh of the world to enter, gradually allowing him or her come to grips with the other elements of his or her socio-equipmental environment. The infant in this way comes to understand him or herself as a fleshly being in relation to the other fleshly beings, which make up her or his world (Merleau-Ponty 1964, 5). This widening of the space between carer and child produces a potential space, or as Silverstone rightly suggests, 'a space for potential' (Silverstone 1994, 9). That is, a space for potential agency and meaning: a gap, or interval between inner and outer, between carer and infant, and ultimately between personal and shared experience.

The correlation between television and transitional objects is not a new one, yet it is often overlooked in media studies and education discussions surrounding the impact that media may have on children's psycho-social development, which tend to focus more on the content of media than its ontological significance. In



contrast, I will reflect on the possibility of television as a transitional object by drawing on the works of Roger Silverstone (Silverstone 1994), Turkle (Turkle 1984), Lally (Lally 2002) and Winnicott (Winnicott 1960).

The most thoroughgoing treatment of television as a transitional object is that proposed by Silverstone (1986) who devotes an entire chapter of *Television and Everyday Life* (1986) to the ontology of television and its function as a transitional object (Silverstone 1994, 1-23). As Silverstone argues, in many instances television occupies the potential space, which was once occupied by ‘teddy bears, blankets and the metaphorical or literal breast’ (13). Just as the security blanket, the teddy bear or the baby bottle have mediated the space of non-coincidence between caregivers and children, so too television rushes in to flesh out children’s worlds as the chiasm widens between mother and child. Speaking of broadcast television Scannell (1988) elaborates by suggesting that television provides a framework for our everyday lives: giving spatio-temporal structure to our existence (Scannell 1996). As such, it continues to provide ontological security in everyday life, which offers a level of stability and reliability in an ever changing world. Hence, television, which is necessarily provided for infants and toddlers by caregivers, bear with them an intrinsic potential to be part of a continuity and predictability of care and being (Winnicott 1960, 47).

Winnicott lists several criteria specific to the relationship which very young children have with transitional objects: they have a material reality, they are the child’s first possessions, they must be able to withstand whatever uses the child puts them to, they must display characteristics of liveness, and they will, in time lose their affective significance (Winnicott 1980). We have already critiqued the limitations of Winnicott’s criteria suggesting for instance instead, that transitional objects may just as readily be hard, as they are soft, and that Winnicott’s understanding of the type of things that are ‘appropriate’ for young children to have should be viewed in its historical context.

In relation to rights of ownership, we must recognize that the dynamics of possession are complex and exceed the television itself. While a television set may be said to belong to everyone in the environment, there are hierarchies of proprietorship, which dictate who can watch what when and for how long, as well as what can and cannot be done with, or to, the television. For instance, very young children are not necessarily afforded rights of ownership over hardware of the television, DVD or video players *per se* and they can, and often are, managed by those other than the infant or toddler. Since very young children are often ranked at the base of the hierarchical pyramid in relation to televisual hardware their rights of ownership are heavily regulated. Yet the proliferation of TVs in various rooms of the house, which ‘belong’ to one or more members of the household, the television in ‘common space’ is often the domain of very young children, allowing surveillance and control by older members of the family (Bittman and Siphthorp 2011). Moreover, the increase in content designed specifically for very young children, particularly on DVD, affords very young children regulated rights of ownership over the content, the operation, and the time and place of use. For instance, crawlers and toddlers often carry around the case of their favourite DVD and insist on having it played over and over again, as a display of attachment and ownership of ‘the television’.

This is consistent with Winnicott’s suggestion that transitional objects will be ‘affectionately cuddled as well as excitedly loved and mutilated’ and that they ‘must survive instinctual loving, and also hating, and, if it be a feature, pure aggression’ (Winnicott 1980, 7). We have already critiqued the ascription of ‘loving and hating’ to very young children and I would suggest that it would be rare for children to ‘cuddle’ a television set, yet anecdotally toddlers will kiss the screen and they do cuddle DVD cases as an extension of TV. Children display attachment to say, a favourite DVD or video case, and even to some extent to a remote control device, over which they can exercise some of the rights of ownership, and which are durable enough to withstand the many affordances that they furnish children. Elaborating on this particular characteristic of Winnicott’s criteria, Silverstone suggests that:

The account of the transitional object depends on a kind of reality testing in which the infant is presumed to follow a sequence in relation to it. The sequence begins with the infant's relating to the object, then 'finding it', and then, at least in fantasy destroying it, but since it survives destruction (it exists despite all my efforts to deny it) it can be used, adored and depended upon (Silverstone 1994, 15)

That is, infants 'find' television by turning it on or having it turned on for them, and 'destroy' it by turning it off or having it turned off, but the television 'survives' to be turned on another time. Materially too, infants and toddlers, are taught rules of engagement with television sets, DVD players and VCRs at a young age which prohibit the potential mutilation or destruction, even if occasionally they might slip up and 'shove a vegemite sandwich into the DVD player' (interview with Christine 15.7.05), hence the criterion is tenuous unless we consider the 'software', or DVD case which will often be thrown, chewed, sat on or cuddled. As such, we can concede that even if television is turned off, it survives to be turned on again. Likewise DVD cases afford, and generally survive, a range of uses that very young children may put them to. That television and DVD cases survive to be used again when they are wanted or needed they act as a source of dependability, comfort and security (15). Furthermore, Silverstone suggests that 'the continuities of sound and image, of voices or music, can be easily appropriated as a comfort and a security, simply because they are there' (Silverstone 1994, 15). Another example of continuity and safety can be seen is where television content attracts and holds an 'other', particularly a significant other in close proximity to the child, creating togetherness, which constitutes a carer-TV couplet, or a layering of comfort and security.

Perhaps the most salient characteristic of a transitional object, is that it must appear to have a life and reality of their own (Winnicott 1980, 7). This is evident in television, in that it mimics habits of care by reliably returning and surviving 'destruction', yet it appears to have a life of its own in other ways. Television content displays simulations of reality, particularly with talking heads and content which directly addresses the viewer as well as entering into the rhythms of everyday life and patterns of behavior within the household. As Palmer notes,

‘television is an integral part of the daily routines, thinking and behavior of most children’ (Palmer 1986, 144).

Adopting a Piagetian framework, Turkle (1986) makes the point that ‘children see almost everything in the world as alive in one way or another’ (Turkle 1984, 33) and that this ‘animism’ suffuses the child’s thinking until they develop a capacity for conceptual thought, which she suggests is at about seven or eight years of age (Turkle 1984, 18). She subsequently asserts that:

Children build their theories of what is alive and what is not alive as they build all other theories. They use the things around them: toys, people, technology, the natural environment; a rapidly running stream, the wind that dies down and starts up again, the jerky movements of a wind-up toy – these are objects to think with, to build with. (Turkle 1984, 44)

Particularly for infants therefore, the line between alive and not alive is blurry, at best (Turkle 1984, 33). This was illustrated in Turkle’s account of four year old Ralph who, when asked to draw something that was ‘not alive’, drew a spider, suggesting that it is not alive, because it can be killed. Despite the obvious contradiction, Ralph’s conclusion is embedded in cultural understandings, as Turkle points out:

As children observe behavior in the world (a world in which bugs, spiders, and caterpillars are often treated as though they were not alive), what people are reluctant and not reluctant to kill enters into children’s ideas about what is alive, not alive, and how to talk about it all. (Turkle 1984, 59)

For Ralph, therefore, spiders apparently occupy a ‘marginal status as a living thing’ (38). The value and status afforded to television may also give the impression of liveness as it is cared for and protected by the members of the family in much the same ways as a living creature may be. Likewise, with the capacity to show user generated content and connect to such online applications as Skype, wherein family and friends may appear on screen, and speak directly to children, reinforces the notion of television’s apparent liveness.

The changes in TV screens from glass to plasma filled plastic may also impact of children’s perception of liveness, since they may see themselves reflected in the

screen even when it is turned off although the reflection is rendered more distinctly on glass than the particular satin finish of the plastic surface of contemporary screens. Hence, although the perception of liveness inherent in reflections may have changed in character, it nonetheless remains a material property of televisions. For this reason, as well as television's screening of people and things which are alive, situating it in the status of marginal objects, which exist on the borders of the physical and the psychological, as 'sort of alive' entities, so the material properties of the television itself may also reinforce this status (Turkle 1984, 31).

This 'sort of alive' status is further supported by Reeves and Nash's argument that, not only children, but adults too, treat computers and television like real people, in that we talk to, and react to, and interact with them as we might to human others, ascribing agency to screens as children do to toys (Reeves and Nass 1996). As such, they can be said to satisfy the criterion of liveness as Winnicott's transitional objects. Televisions as objects which have movement, may appear to the infant who sees practically everything as alive, to have a reality of their own which affords a continuity of care, comfort and security in the absence of their caregiver. On this basis, it would appear that like the impermanent but reliably reappearing mother, screens might carry significance for children, which remains largely under acknowledged.

Silverstone also suggests that the Winnicott's emphasis on the material softness and warmth of transitional objects should not be taken too literally, but that it does not alter their status as such (Silverstone 1994). He does not either mention the liveness of television but rather focuses on how television enters into the potential space between the primary care giver and infant in the process of maturation and reliability of care. As such, Silverstone argues that, 'our media, television perhaps preeminently, occupy the potential space released by blankets, teddy bears and the breast, and function cathectically and culturally as transitional objects' (Silverstone 1994, 13).

While the materiality of transitional objects as forwarded by Winnicott should not, as Silverstone suggests, be taken too literally, considering the materiality of television is crucial to our understanding of how the changing texture of worldly flesh mediates children's existence by comparison to say, a teddy bear or security blanket. The materiality of television has changed significantly since its inception. In the past ten or so years, and where screens were made of glass, they are now made of soft plastic, making them more expensive and much more vulnerable to damage and affording different visual, auditory and play-with-ability experiences than their earlier counterparts. For instance, how children may interact with television is more closely monitored and regulated due to the expense and relative fragility of newer TV screens.

Another characteristic of Winnicott's transitional objects is that they are perceived by very young children, although not by adults, as coming from the marginal space between personal and shared perception—from neither without nor within. This resonates with their status as marginal objects and their 'sort of alive' status to very young children. Turkle (1984) argues in relation to computers, that they occupy the ambiguous space between self and not self. The same may also be said for television: it occupies the 'potential space' or *écart*, which is the interface between the inner life of imagination, sensation and feeling, and its interaction with external reality (Lally 2002). In Winnicott's terms potential space is a place we inhabit for which neither of the terms 'inner' nor 'outer' is an adequate description (Lally 2002, 28).

The ultimate fate of transitional objects is generally to be discarded as the transitional experience passes. On this point, Turkle remarks that:

As the child grows, the actual objects are discarded, but the experience of them remains diffused in the intense experiencing throughout life of an intermediate space. (Turkle 1984, 119)

The security and reliability of transitional objects mimic the maternal provision of holding and ease the transition as an experience of ontological security, and as Turkle suggests, despite the actual object often being discarded, the attachment to

it does not necessarily diminish. Yet, as a persistent transitional object, television is unique in that it stays with us throughout life, evolving into other screens; it is a fundamental part of our experiencing. That is, while in Winnicottian terms, the transitional objects are destined to lose their significance in terms of easing transition, television is not outgrown but rather carries on, occupying potential space with varying degrees of magnitude and significance throughout our lives (Silverstone 1994, 15). Some of us retain a strong attachment through the feeling of security associated with the adoption of television as a transitional object and, throughout our lives, particularly in times of transition, return to the ‘maternalizing call’ of television as a way to console ourselves (Ronell 1989). Hence, as Silverstone suggests, beyond infancy, like all other material objects, television has the capability of engendering some level of security, dependence and attachment which is, in part, due to the routine or habitual use of TV screens. In the case of television, he suggests that:

These attachments are over-determined by the content of the media, and in television’s case through its schedules, genres and narrative. Television is a cyclical phenomenon. Its programmes are scheduled with consuming regularity (Silverstone 1994, 15)

For example, Sesame Street, or Play School are scheduled and screened at particular, regular times of the day which are thus designated as children’s TV time, usually in the morning when carers are likely to be busy, preparing breakfast, or clearing the dishes, or in the afternoon, just before the older children get home from school. Hence, through the regularity of scheduling and consumption, and the placement of bodies, habits of watching are learned.

Silverstone’s statement, however, should be understood in its historical context. In the past twenty years the technological advancements surrounding television have considerably changed television viewing experiences. In 1994 broadcast television *may* have been the predominant mode of watching, although since at least the 1980s television has served as a conduit for VCRs and DVD players as well as video games. The foregoing quote has little currency unless we are only considering broadcast television devoid of capacity and desire to record and

replay at any time. For very young children, in particular, the age appropriateness or otherwise of broadcast TV has seen many children watching DVDs or recorded programming more regularly than TV in and of itself. In today's televisual environment, DVDs as the holders of content, afford the ontological security of transitional objects; as controllable, virtually indestructible containers of reappearing 'nurture' over which many very young children exercise rights of ownership. Even very young children exercise some regulated rights of ownership over television, but more specifically DVDs, being able, at a young age to operate the device, choose a particular DVD and play it repeatedly. Even if they are not able to operate the technology, and rely on the carer-TV couplet, infants and toddlers are able to control what they watch and when, to a large extent. This aspect of television, as a conduit for other types of hybrid technologies, is also translatable to console, and later, computer games. Unlike many other transitional objects, however, television does not necessarily lose its affective significance but rather oscillates between the foreground and background of children's attention; between hermeneutic, background and embodied human-technology relations (Ihde 1979). That is, it exists in the space between imagination and reality, easing transition and standing in for care. Television is at various times, the background for other activities, the focal point of our attention and as part of our corporeal schematics, facilitating split attention and distraction.

We should also recall, importantly, that as these technologies fill the space of *écart*, they are also instrumental in widening the chiasm between caregivers and young children. This is an achievement of the capacity of technologies to mediate our concerned orientation and consequently, our ways of being with-in-the-world. Television precisely occupies the space between inner and outer, and between personal and shared experience and, constitutes at least an aspect of lifeworlds of very young children; all this at the time in their lives when they are literally coming to grips with the world, and formulating the bases of conceptual knowledge. The status of aliveness afforded to television, encourages habits of orientation which are precursors of a later 'turning to screens' as part of our



collective embodiment. Hence, as I will discuss in the next chapter, familiarity with TV partially determines infants' and toddlers' relation with later screens.

### ***Television as a Facilitating Microenvironment***

Considering television as an environment is not new yet this characteristic is often only referred to fleetingly in relation to children and media. Consequently, its ontological significance is often left relatively unexamined. One sense in which I argue that television may be considered environmental refers to the understanding of a medium as a 'pervading or enveloping substance, or environment' in that it wraps around us, holding us in relationship with the screen (OED, 554). As Taylor reminds us, 'what I am perceiving is a world with which I am already engaged, which envelops me, of which I am a part, where I am situated' (Taylor 1990, 12). Television conditions space, texturing our environment and gathering us in relation to it. The pervasiveness of television in the early twenty first century can scarcely be denied. The ubiquity is such that as long ago as 2001, Amy Jordan and Emory Woodard claimed one in six two-to-three year old children in the United States, 'has a television set in his or her bedroom' and that 'he or she will spend more than 4 hours each day in front of a screen' (Jordan 2001, 4). Thus, the ever present television constitutes a part of the enveloping space in which infants and toddlers live and grow as part of the material conditions of their existence. That is, TV is a part of the texture of very young children's socio-equipmental-environment, as a part of 'the natural setting of, and field for, all [their] thoughts and all [their] explicit perceptions' (Merleau-Ponty 1962, xi). On the premise of the 'television environment' Tichi argues that "'environment" is no television synonym' (Tichi 1991, 3). Rather, it is a 'symbolic' or metaphorical environment which is largely transparent and into which we are born in Western societies, as such it is 'an encompassing surrounding' (Tichi 1991, 3). As Lucas Introna and Fernando Ilharco (2006) suggest, television holds us but the holding is not a physical holding, just as the holding environment is not necessarily a physical holding, but rather an enveloping: it surrounds us and attends to us as we attend to

it. This simulation of other facilitating microenvironments informs very young children's relations with later screens, such as videos and computers.

Television may be considered a facilitating microenvironment in at least two respects. Firstly, television acts as a holding space, or container of content and potential relevance, and secondly, it is a small, albeit virtual environment, which in some instances calls and holds us in an arguably safe place (Livingstone 2007a). Both of these aspects of television as a facilitating microenvironment will be discussed in what follows. Silverstone suggests that television,

will become a transitional object in those circumstances where it is already constantly available or where it is consciously (or semi-consciously) used by the mother-figure as a baby sitter: as her or his own replacement while she or he cooks the dinner or attends, for whatever length of time, to something else, somewhere else (Silverstone 1994, 15)

Just as become a transitional object in such circumstances, so it may also become a facilitating microenvironment in similar circumstances. For instance, Emma, who does not like television, and particularly some content, admits that if she needs an hour she will put the television on and she knows that the children will be happy for that hour: 'you know, you want to get the housework done and you just do it. It's so embarrassing' (interview with Emma 1.7.05). The facilitating environment is essentially a holding, or container environment which acts to reduce risks to infantile physical or psychological safety (Winnicott 1960, 47). As such, it exceeds Winnicott's characterization of the maternal provision necessary for survival in that it bears with it an 'inherited potential' to establish and maintain a 'continuity of being' or ontological security (Winnicott 1960, 47, Lally 2002). The role of the facilitating and holding environment serves infants' needs on both the physiological and the psychological level (Winnicott 1960, 48). It is a safe place, which protects very young children from physiological and psychological harm (49). As Rideout and Hamel suggest:

Parents use TV or DVDs as a "*safe*" activity their kids can enjoy while the grownups get dressed for work, make a meal, or do the household chores... when children are grouchy, or hyper, or fighting with their siblings, moms and dads use TV as a tool to help change their mood, calm them down, or separate squabbling brothers and sisters. Media are also used in enforcing

discipline, with a TV in the bedroom or a handheld video game player offered as a powerful reward or enticement for good behavior. Everyday activities, such as eating a meal or going to sleep, are often done with television as a companion. And media are used to *facilitate moments of transition* in daily life: waking up slowly while groggily watching a couple of cartoons on mom and dad's bed, or calming down to a favorite video before bedtime. (Rideout and Hamel 2006, 4)emphasis added.

The foregoing quote therefore implies, as I argue, that television and DVDs function in much the same way as both transitional objects and facilitating microenvironment. It is also a safe space which facilitates particular habits of being, discovery, exploration and play as well as enabling the development of an understanding of self-other in relation to children's socio-equipmental-environment. The continuity of 'care' that television provides is safe in other ways too. Children can be left in the care of television with the assurance that they will not get into trouble, and that they will have access to 'safe' content. Yet, the safety of television is a precarious safety, particularly with broadcast television, for at any moment it could be interrupted by content which may be considered inappropriate. This is illustrated in Christine's experience of the 2005 London bombings:

...there was no warning, like 'parents we're about to interrupt this...' and it was the middle of an ABC kids program and it's just straight away, you know, like one second 'we interrupt to tell you this breaking news' and straight away, footage of blown up buses and everything, people and I was just straight away like 'right TV off' you know. That really annoys me when that happens (excerpt from interview with Christine 15.7.05)

One of the justifications for a proliferation of media in contemporary Western homes is the perception that public places, such as parks are no longer safe places, but rather are increasingly perceived as potentially dangerous (Livingstone 2007a). Particularly in our 'risk society' (Beck and Beck-Gernsheim 2001), as Livingstone notes, ' "outside" spaces are seen as ever more risky for children, "home" takes over as the focus of their safety, identity and leisure' (Livingstone 2007a, 302). While the direct impact of considering unsupervised outdoor play may only be peripheral to discussions of infants and toddlers and the media, very young children cannot be left unattended. Livingstone points to a shift from

outdoor recreational pursuits to indoor ones with parents generally considering it no longer safe to play outdoors, in parks and public spaces (Livingstone 2007a, 302). Livingstone makes an explicit link between a retreat to the home and increased media consumption, hence, despite the potential risk of harmful content, the mediasphere *en large* may be considered as a facilitating microenvironment or holding space which protects children from harm. As infants' and toddlers' mobility grows so too does their understanding of content, hence television can become a way of holding children without physical restraint.

Turkle discusses the capacity of televisual media at length in relation to the holding power of computers (Turkle 1984). In doing so, she speaks to the notion of computer addiction, yet her discussion can just as readily be applied to screen media more generally. Television is a holding space or container technology which not only contains content, but also holds infants, toddlers and all of us who have, through repeated perception, come to attend to it as part of our habits of being; holding both our attention and physical proximity (Introna and Ilharco 2006). This conception enables us also to think about televisual technologies as holding environments, in Winnicottian terms (Winnicott 1988) or, more specifically as the chiasmic intertwining of flesh of the world (Wynn 1997).

Television also sets up a horizon of possibilities which facilitate infants' and toddlers' dis/integration from their carers and into society by functioning as both transitional objects and facilitating microenvironments. That is, television, like all other human and non-human objects in-form very young children's understanding of the world, and integrate them into their socio-equipmental-environment while simultaneously, disintegrating them from their primal connectedness with their carers—television literally fills in. Television becomes part of who we essentially are; a part of the world as it may be for us. In phenomenological terms, as the chiasm between child and mother widens, television as an all pervasive part of the flesh of the world, rushes in to fill the space of *écart*.

## ***Mediating the Domestic Facilitating Microenvironment: A Detour into the Phenomenological History of Television***

Our screened world has changed considerably since the inception of television and the materiality of very young children's socio-equipment environments have changed along with it. As such, it is worth a brief detour into how television's materiality has changed over time in order to gain a greater understanding of how television is implicated in changes to the context of family through spatial arrangements within domestic space: producing a multiplicity of media spaces, coopting family and individual activity around and in relation to TV, and producing hierarchies of inclusion and exclusion through everyday practices and rituals enabled and constrained, in part, by the television itself.

In this section I will focus on how television mediates domestic holding spaces, with the understanding that space and time are inextricably intertwined and one cannot be considered in complete isolation from the other. In doing so, I will consider how spatial arrangements have changed, and are continuing to change, to accommodate television and how such changes have implications for infants' and toddlers' lived experiences in relation to their televisually mediated lifeworlds. From the mid-twentieth century television has become an increasingly integral part of very young children's socio-equipmental environments coopting both temporal and spatial arrangements in households in various and often contradictory ways. As discussed extensively in Chapter 2, we are all primarily embodied beings-in-the-world and the shape of our world shapes our perceptions and experiences, consistent with our own corporeality and the technologically mediated spaces that constitute it.

Our perceptions and experiences are shaped in space but space cannot be considered as an empty container, devoid of human subjectivity and activity (Burgin 1996, 26-27). Instead, as Lefebvre (1991) argues, space is not only produced, but also produces human activity, and significantly, it is through the body that space is perceived and lived (Lefebvre 1991, 162). Since the late twentieth century there has been an increasing recognition of space as a

qualitative context, or space of potential (Shields 2006, 147). Drawing on Winnicott's notions of the facilitating environment and potential space, Silverstone points out that it 'is the space of illusion: the capacity to imagine, the capacity, indeed to create meaning' (Silverstone 1994, 10). Consequently, as Sofia tells us space becomes 'a bearer of intelligence' or at least of potential meaning (Sofia 2000, 182). This is also consistent with Yuri Lotman's claim that the production, reception and circulation of meaning happen in relation to space (Lotman 1990, 123-125). Hence we need to understand space, not only in terms of spatial relations and the distance between things in the world but as a socially produced order of difference (Shields 2006, 149). That is, we need to understand spatialisation as it is achieved through historically specific everyday practices and rituals, particularly of inclusion and exclusion (149). As Silverstone notes:

Our domesticity is the product of a historically defined and constantly shifting relationship between public and private spaces and cultures, a shifting relationship to which television itself contributes. That domesticity is at once a phenomenological, a socio-cultural and an economic reality. (Silverstone 1994, 25)

Prior to 1935 television was not electronic but rather the screen 'had a small motor with a spinning disc and a neon lamp, which worked together to give a blurry reddish-orange picture about half the size of a business card!' as can be seen in figure 5.1 (2001). Hartley and O'Regan (1985) suggest that:

Among the general reasons for television's easy assimilation into people's lives was the existence of media, especially radio and cinema, that had already 'trained' people in the necessary skills for watching and enjoying TV. (Hartley and O'Regan 1985, 204)

As can be seen in figure 5.1 the small screen size—'half the size of a business card'—and the reddish orange blurriness of early TV images, demanded close attention in order to 'watch', introducing us to new ways of watching that neither cinema nor radio demanded. Television viewing, at least in its infancy, became an activity specific to the new medium which was quite unlike those that had gone before it. Early television thus required us to learn new ways of attending to screens.

# Popular Mechanics Magazine

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## Television for the Home



Behind a Little Three-Inch-Square Aperture, the Moving Picture from the Radio Studio Appears, While the Watcher, with a Push Button in His Hand, Keeps the Picture Synchronized

GROUPS of people sitting in various homes at Schenectady, N. Y., a few weeks ago, saw the performers in a distant broadcasting studio flit across a tiny screen, and from the loud speaker of a radio set heard them talk.

Television, a laboratory plaything that has interested scientists for several years, had arrived.

A large, square cabinet, built somewhat like the bigger talking-machine models, is the first home receiver for radio-transmitted images. The dials of a receiver protrude from its middle, and above them, at

the eye level of the seated spectator, appears a three-inch-square window, behind which is the screen on which the images are formed.

The one great problem that has perplexed television experimenters for years—how to synchronize the transmitter and the receiver—was solved by simply ignoring it. Instead of all the elaborate, and very expensive, equipment necessary to keep the whirling disk of pinholes that paints the image on the receiver screen in absolute step with the corresponding mechanism that transmits the original

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Figure 5.1 1928 Popular Mechanics Magazine (1928)

The size of the screen and the implications of television's insertion into domestic space in terms of spatial organization and attention are illustrated in the article in *Popular Mechanic Magazine* shown in figure 5.1. As the article tells us, the television is built into a large cabinet with control knobs on the front, and, 'above them, at eye level of the seated spectator, [notably in the singular] appears a three-inch-square window, behind which is the screen on which images are formed' (1928, 529)

Such early models also introduced us to a hierarchy of viewing which enabled some to see and some not, as shown in figure 5.1. The size of the screen and the poor image quality allowed only a small audience, at very close proximity to the screen to view what was being shown. The small size of the screen sets up a hierarchy of viewing consistent with dominant family relations of the time with the father, as the head of the household, located directly in front of, and close to the set. Mother stands behind him and the children are arranged increasingly further away from and at a greater angle to the screen. It is doubtful from this image, whether the children would be able to see anything at all. The image, however, does illustrate how early televisions set up the conditions of attention for later screens, as Hartley and O'Regan (1985) suggest that 'television was watched with an intensity, concentration and lack of conversation that would be unfamiliar today' (204). The image, moreover, gives a visual representation of the ways in which television's incorporation into the family home, not only changes the spatial organization of the room in which it is placed, but also enters into family power relations, giving priority to some members of the household at the expense of others.

The cabinet housings also implicate the notion of television as furniture referred to in Hartley and O'Regan's 1985 *Quoting Not Science but Sideboards: Television in a New Way of Life* (Hartley and O'Regan 1985). The incorporation of TV into family homes, thus, was not an easy one, as Spigel (1992b) and Hartley and O'Regan (1985) acknowledge; existing furniture and family interaction needed to be rearranged to 'make room for TV' (Spigel 1992b, Hartley



and O'Regan 1985). The example in figures 5.1 is particularly notable in terms of television's role in the spatial reorganization of domestic spaces. Figures 5.1, 5.2 and 5.3 which were taken from advertisements and magazine articles, not only illustrate spatial configurations around the television but given the era in which they featured were early in television's adoption, may be considered as instructions for how television should be attended to.

Figures 5.1 and 5.2 illustrate the size of the screen relative to the volume of their housings. In these figures we can see that the large cabinets filled spaces which would otherwise have been empty or filled by some other item. When television was first introduced into Australian homes, it was discursively and physically situated at the centre of family life, purportedly taking the place of the piano, the fireplace or the radio as the hub of family activity and communication (Spigel 1992a, Hartley and O'Regan 1985). Television's ultimate destination for the family home is further captured in the General Electric advertisement in December 1939 *Fortune Magazine* shown in figure 5.2.

**GENERAL ELECTRIC**  
**TELEVISION**  
**RECEIVERS**  
*Thrilling Reception of Exciting Events As They Happen!*

**MODEL HM-225**  
 A strikingly attractive 22-tube Television Receiver with both picture and sound reception. Picture size 5 5/8 by 7 3/4 inches. 5 Television Channels. Touch Tuning Selector Keys. 12-inch Dynapower Speaker. 10 Watts Output.

**MODEL HM-185**  
 A complete Television sight and sound Receiver that reproduces a picture 3 1/4 by 4 1/2 inches. 3 Television Channels. Touch Tuning Selector Keys. 18 Tubes. 12-inch Dynapower Speaker. 5 Watts Output.

**MODEL HM-275-3A**  
 A real de luxe Television and Radio Combination. Picture size 7 1/2 by 10 inches. 5 Television Channels and 3-band Radio Receiver. Touch Tuning Selector Keys. 30 Tubes. 12-inch Dynapower Speaker. 10 Watts Output.

**MODEL HM-226-7A**  
 A big rich-looking console that receives both Television and Radio. 5 Television Channels. Picture size 7 1/2 by 10 inches. 3-band Radio. Touch Tuning Selector Keys. 29 Tubes. 12-inch Dynapower Speaker. 10 Watts Output.

**MODEL HM-171**  
 This sensational table model Picture Receiver with sound converter makes it possible for the miracle of television to be enjoyed where this model is used in conjunction with the present radio. You see a 3 1/4 by 4 1/4-inch picture in the Picture Receiver and hear the sound portion of the television broadcast through the radio loudspeaker. 3 Television Channels. Touch Tuning Selector Keys. 17 Tubes.

**14 YEARS OF RESEARCH AND DEVELOPMENT ARE BACK OF EVERY G-E TELEVISION RECEIVER**

Figure 5.2 1939 GE Sales Brochure (Genova 2001d)

During the late 1930s and early 1940s, the technology developed, becoming electronic, consequently producing better quality images and sound. These characteristics enhanced the medium's desirability as an inclusion into the family home. The 30s and 40s also witnessed increased screen sizes, and cabinet sizes signaling its suitability for incorporation as a domestic appliance, article of furniture, although few were privately owned at this time.

There was understandably somewhat of a lull during the Second World War, but as Tom Genova tells us:

The time period after World War-II is considered the last and final birth of television. Families had accumulated savings during the war years, and were eager to purchase homes, cars and other luxuries denied them during the war. Television sets were soon added to the 'must have' list. The explosion of sets into the American marketplace occurred in 1948-1949. The post-war sales boom for England followed a few years later (2001).

Australia lagged behind the rest of the Western world in terms of the uptake of television and the first broadcast did not take place until the 1956 Melbourne Olympic Games (Hartley and O'Regan 1985). By the fifties in the United States, however, television had already embedded itself as a 'must have' in the home as shown in figure 5.2 of a 1950s family watching television.



Figure 5.3 1950s Family Watching Television (2013)

As television became a more accepted part of the domestic environment, both screens and the cabinets which held them, increased in size as can be seen in figure 5.3. Consequently, making way for the TV as well as facilitating viewing necessitated a further reconfiguration of domestic space. As can also be seen in figure 5.3, furniture and bodies were arranged with more or less success to facilitate watching.

Milly Buonanno (2008) reminds us that private television ownership was initially rare in Australia in the 1950s and that:

For a number of years so long as having a television set was the exception rather than the rule, families with a set would throw their homes open to relatives, friends and neighbours, welcoming them into the rooms of the home – sitting room, parlour, dining room, breakfast room – where the furniture would be rearranged so as to make room for small seats and ‘theatres’ with the chairs sometimes brought along by the guests themselves) arranged in a row or a semi-circle. (Buonanno 2008, 15)

The quasi-cinematic experience of watching television with a group aided television’s incorporation into the home and blurred the distinction between public and private spaces (figure 5.4). The arrangement of guests’ and families’ bodies in a row or semi-circle is illustrated in figures 5.1 and 5.4. Buonanno asserts that such activity reinforced the notion that television ‘brings the world to your home’ both literally and metaphorically (15).



Figure 5.4 Television as a social Event (2009b)

In her examination of domestic space Spigel (1997) relies on the metaphor of the theatre as the model for architecture from Victorian times where homes were separated into distinct ‘upstage’ and ‘backstage’ areas, which corresponded to our contemporary understanding of the distinction between living and family rooms (Spigel 1997, 219).

With the introduction of colour, increased screen size and increasingly sophisticated electronics enabling better image quality, television viewing became a more immersive experience, creating a powerful illusion of ‘being-there’ (Morse 1998). By the late fifties in the United States, television had become the norm, rather than the exception in homes and they became more stylized and elaborate as people increasingly accommodated them into their existing décor (see figure 5.10).

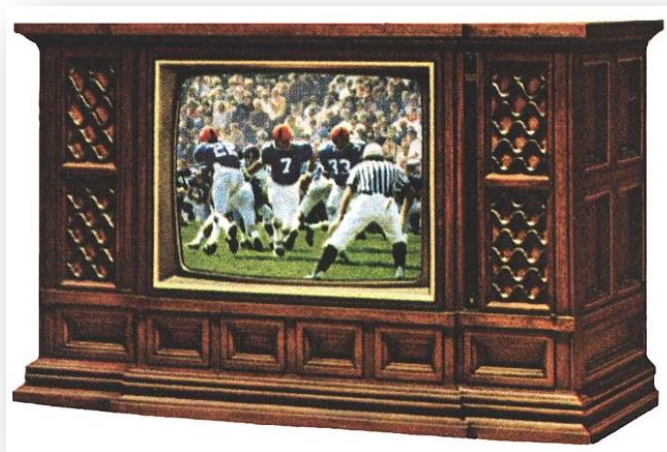


Figure 5.5 Television as Furniture Piece (Genova 2001h)

As television became more commonplace in households, watching TV, ‘began to lose its quasi-cinematic, social aspect, and to take on its more recently characteristic patterns – it was a private, family activity, with just one family per set (Hartley and O’Regan 1985, 65). In the second half of the twentieth and early in the twenty first centuries, the landscape changed with a burgeoning in television ownership. Where families initially had one set that they shared and fought over, gradually with decreases in cost and improvements in portability they have become more personalized, and now:

[f]rom being a collective experience shared with family, friends and neighbours, watching television may take place simultaneously in different rooms in the same household, individually by members of the same family (Bignell 2008, 26)

Hence television not only got larger, it simultaneously became smaller and more mobile as television become an indispensable part of everyday life for many families, signaling the shift from a shared experience to an individual experience and a shift from public to private (see figure 5.6).

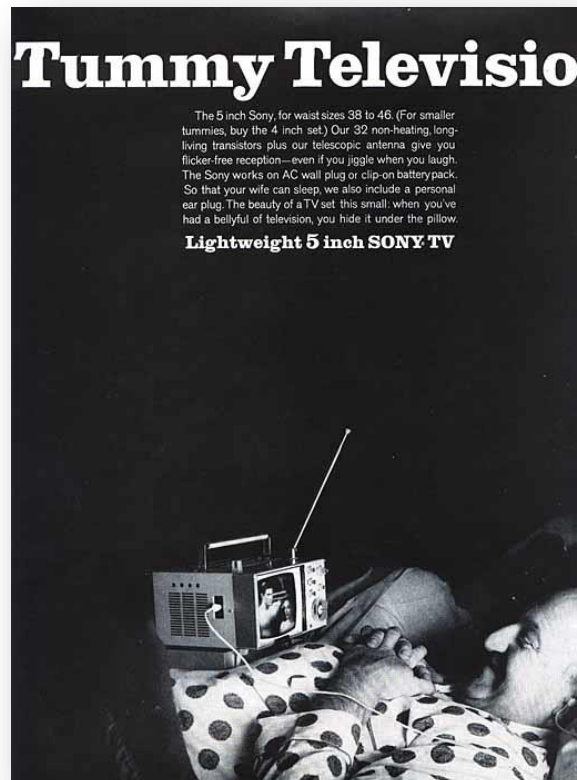


Figure 5.6 5” Tummy Television (Genova 2001f)

This may be considered as consistent with trends towards mobility and privatisation referred to by Raymond Williams (1992) who suggested that television ‘an at once mobile and home-centred way of living: a form of *mobile privatisation*’ countering the contradictory demands of modernity for both of mobility and privacy (Williams 1992). It is also reminiscent of Ulrich Beck and Elizabeth Beck-Gernsheim’s notion of individualization, which implies simultaneous ‘disintegration of previously existing social forms...[and] new

demands, controls and constraints are being imposed on individuals' (Beck 2001, 2). As such, it signals a systematic shifting of responsibility and risk associated with life choices away from the 'state' and onto individuals (Beck and Beck-Gernsheim 2001).

As television became accepted, manufacturers worked towards improving the television experience so improved audio quality, colour, increased and simultaneously smaller screen size, better picture quality, 3D and 'smart' TV became ways to increase demand. Consequently, Samsung launched a £7 million advertising campaign to support the promotion of the 'Smart', internet enabled TV shown in figure 5.7 (Owen 2011).



Figure 5.7 LG Smart TV (Owen 2011)

With changes to the technology of television, not only spatial layout within the lounge room changed, but also architectural allowances began to be made for specific media rooms. Livingstone notes that since the mid twentieth century, the burgeoning of 'domestic mass media' has significantly altered the lifeworlds of children (Livingstone 2007a, 303). The two trends she identifies are a shift in the delineation between home and the outside world which was facilitated by television, and later, with increasingly mobile and private media, the delineation between 'family life and the private life of the child' (Livingstone 2007a, 303). The two trends of demarcation, Livingstone likens to changing boundaries of the

‘front door’ and the ‘bedroom door’ (303). Where in the early years of television’s integration into the family home, entertainment was no longer something that necessitated leaving home, the proliferation of ownership by multiple family members meant that media consumption become a much more private experience. Despite relatively enduring architectural trends which attempts to carefully delineate private and public spaces:

the living room is increasingly deserted for the bedroom, and in which private experience is prioritized even in public spaces, through the sound bubble created by headphones, the personal ownership of a television set, and the individualized mediascape of the mobile phone and iPod. (Livingstone 2007b, 16)



Figure 5.8 Contemporary Floorplan (2014)



Just as mobile privatization, and individualization may be considered as oxymoronic concepts, so too is the history of television and the ways in which it has reconfigured domestic time and space. While screens have become more mobile and private they have also become more cinematic in recent times. As such the move to personal spaces of media consumption prevails so too communal and familial spaces are increasingly incorporated into architectural trends. Even budget homes such as that shown in figure 5.8 now include a theatre or media room, something which could scarcely have been imagined in the 1950s. This signals the ambivalent relationship we have with television, where on the one hand it is afforded status as a means to bring people together and on the other it is only available at certain times and to certain members of the family.

Prior to our capacity to record televisual content too, network scheduling entered into the rhythms of everyday life, aligning content with the procession of time. Marking off, not only times of inclusion—children’s programming time—and exclusion—adult programming time—but enlisting this to configure spaces of inclusion and exclusion. For instance, in Kate and Seb’s lives early morning is, for a short period of time, *Sunrise* and news time for mum, and then when she is getting ready for work, it becomes *Bob the Builder* time for Seb. As Kate told me:

So usually I shower him and get everything organised and get him dressed and put him into his high chair and put Bob on for him and that gives me a chance to get my shit together for the day and get his bag ready and whatever else because he’s quiet (excerpt from interview conducted 19.11.05)

Children’s shows, in particular, are scheduled in regularly designated children’s TV time, usually in the morning when carers are likely to be busy, preparing breakfast, or clearing dishes, or in the afternoon, just before the older children get home from school or as dinner is being prepared (Silverstone 1994). As Silverstone suggest, our attachments to television ‘are over-determined’ by the showing of content with ‘consuming regularity’ (Silverstone 1994, 15). Although network scheduling does not figure as prominently today, in terms of content, our use of DVDs still allows a regularity of screening which enters into the rituals of everyday life, marking and segmenting times to watch, and mediating our



experiences of time. The overlaying of virtual space onto physical space will be dealt with in greater theoretical depth in the next chapter, but at this stage it is worth mentioning in terms of the ways in which time *and* space started to be reconfigured to fit in with television viewing.

The lifeworlds of children have changed in relation to spatial modifications to which television has contributed, but to suggest that this is straightforward or generalizable is to discount televisions', families', spaces', and children's uneven development. Nonetheless, we may infer that television's incorporation into domestic environments reshapes those environments and children's experiences within, and in relation to them. This is particularly so, when we consider that as 'private' screens have become dominant, television is now often the domain of very young children (Bittman and Siphthorp 2011).

Television's introduction into domestic spaces literally reconfigured domestic holding spaces, changing the habitat and the *habitus* of those dwelling within them in multivariate ways, constraining and enabling particular modes of being, interacting and watching. As Hartley and O'Regan (1985) note:

[C]ulture, knowledge and experience are themselves forms of communication, but communication is based as much on spatial relations, tactile qualities and tensions as on sights, colours and sounds. In such a context, the arrival of television in Perth can be looked at physically, as it were, as its subsequent changes and developments can be traced in the ways that people consumed space and time; how they learnt, or were encouraged, to accommodate their bodies to the TV and the TV to their physical environment. (Hartley and O'Regan 1985, 63)

As Silverstone (1994), Spigel (Spigel 1997), Livingstone (Livingstone 2007a), and Hartley and O'Regan (Hartley and O'Regan 1985) point out, television's introduction domestic space has contributed to significant shifts in domesticity, reconfiguring relationships of public and private spaces, daily routines and patterns of activity in the home. The status afforded to various domestic screens in diverse contexts implicates notions of attention; a problematic concept that will be dealt with in the upcoming sections.

## *A Screened World*

As well as considering the specificities of television, it is important to consider the phenomenological implications of screens more generally, as well as the notion of a screened world, since the way that television calls and holds our attention is simultaneously part of, and a precursor to, our engagement with other screens, which will be discussed in more detail in the next chapter. In the early twenty first century, young children and adults alike are inescapably in the world with screens, which demands a being-with-screens. As Introna and Ilharco (2004) suggest, the proliferation of screens and their intertwining with our everyday lives means that we now inhabit a world in which there are more screens than there are people.

Whether at work, at home, travelling, or immersed in some form of entertainment, most of us find ourselves increasingly in front of screens – television screens, cinema screens, personal computer screens, mobile phone screens, palmtop computer screens, and so forth. The last decades have witnessed a massive diffusion of television screens into people’s day-to-day lives...It seems evident that screens are increasingly a medium, a way, or a mode into the real as well as a part of that same reality. The world we encounter is increasingly a screened world (Introna and Ilharco 2006, 57-58)

As such, screens are not only a way of accessing and informing us about reality but they are also increasingly more significant as an integral part *of* our reality (Introna and Ilharco 2006, 57-58). That is, as an ever more ubiquitous accompaniment to our lives, screens technologically texture our lifeworlds, literally and metaphorically putting us ‘in the picture’ and simultaneously configuring time and space to accommodate them. Consequently, our being-in-the-world is mediated more than ever by the co-location of screens in our everyday lives. While I am focusing on television and screens in general in this chapter, the broader implications of a screened world will be explored in the next chapter on mobile phones and tablets.

Generally when we attempt to analyze screen based technologies we are inclined to look at screens in terms of what appears on them—that is in terms of content—rather than the screen itself. This is a sentiment which echoes medium theorists

like McLuhan (1964), Silverstone (1994) and Weber (1996), who hold that the specificity of media technologies rather than content alone should be paramount in any attempt to understand the ways in which media enter into our lived experience of the world. Thus, television content is only part of the equation, since it is imbricated in the context of viewing, the role that television plays in the household and the size and placement of the screen. Drawing on Martin Heidegger's phenomenology (1927/1962) Introna and Ilharco (2006) suggest that due to our 'familiarity with screens', we tend to overlook the screen-ness of the screen: 'we never seem to look at a screen, as a screen' (Introna and Ilharco 2006, 62). That is, because we are so accustomed to being-with-screens we often fail to notice the specifics of screens, or the characteristics which distinguish them from being any other surface (62-63). Introna and Ilharco (2006) suggest, however, that we need to be aware that screens, in their screening:

present, show, exhibit, what is supposed to be relevant information in each context,...Screens exhibit what was previously chosen, captured, processed, organized, structured and finally presented on the screen (Introna and Ilharco 2006, 63)

In their screening, therefore, screens are always-already implicated in ongoing human activity (63). Since screens screen what is supposed to be relevant, they intercede into our ongoing activity and involvement in-the-world when we turn them on, prompting orienting responses and proximity seeking behaviours, the configuration of spaces around a screen or screens, and hierarchies of viewing. As such, Introna and Ilharco (2004) point out that screens condition 'our engagement with certain surfaces in as much as we comport ourselves towards them as screens' (Husserl 1913/1964 cited in Introna and Ilharco 2006, 58). Our inclination towards, or chiasmic intertwining with screens, reveals itself through proximity, posture, orientation and gesture, most noticeably with a frontal orientation and generally a lean back or lounging posture—although this has evolved over time from a leaning forward posture as we have seen which is indicative of a shift from focused attention to a more relaxed style of interactivity with the set which allows other flesh to enter the broadening space of *écart*.

As such, Introna and Ilharco (2006) argue that because screens concern us, we conduct ourselves towards them. Scannell (1996) offers a useful elaboration on the concept of ‘concern’ which reminds us that:

Concern is all such things as noticing, remarking upon, attending to, observing, picking out, foregrounding and bringing to bear a focused attentiveness upon phenomena (upon each other and our selves and circumstances) in such ways as to find and make the matter to hand significant and meaningful in some way or other. Concern is being caught up in. It is engagement *with*, involvement *in*. (Scannell 1996, 144)

Concern, therefore, is a bodily engagement with, an involvement and an intertwining with those things that affect us, that attract not only our attention but also our proximity and orientation to them, entering into our ongoing activity with-in-the-world. It is on this point that content becomes significant, in so far as it can attract the attention of very young children, but importantly can attract and hold the attention of other people in the infants’ and toddlers’ socio-equipmental environments. Adults concern with and for screens, particular to specific contexts (for example the office or the airport) are ‘often the focus of our attention’ (63). When adults attend to screens, however, we do not *only* see content but we also and arguably more fundamentally see a ‘way of being in [the] world’ which ‘is consistent with our ongoing involvement in that world’ (66). As adults turn to screens, very young children learn habits of being-with both screens and other people.

Introna and Ilharco also suggest that screens implicate our activity and participation in-the-world at the moment we turn them on (2006, 63). In doing so they allude to the most fundamental aspect of Merleau-Ponty’s reversibility thesis, which acknowledges that we touch screens just as they concern or touch us, asserting a mutual intertwining of human and technology. Our involvement with screens, therefore, must be considered as an *interaction* rather than being an action which is done to either party by the other. As such, by turning on the screen we are complicit in a particular way of being in a ‘world where screens screen’ (Introna and Ilharco 2006, 68).

Introna and Ilharco (2006) argue that we have an originary relationship with screens as objects that matter, and that they are revealed to us as the types of things they are because they matter (60). As such, they suggest that:

in th[e] ongoing horizon of human existence, things show up as that which they are, not simply because we choose to take them to be this or that thing, but rather it is possible to take them as this or that thing because they are already revealed as such, within and through the ongoing referential whole of ongoing human existence. This already-worlding of the world is exactly what allows the familiar and useful to show up as familiar and useful, in the first instance. (Introna and Ilharco 2006, 60)

Introna and Ilharco (2006) also suggest that ‘attention, relevance, and the world’ are intimately involved ‘in the meaning of the screen’ (66). In an argument which resonates with Norman’s (1990) notion of affordances, Introna and Ilharco (2006) suggest that the meaning and intended use are clearly apparent to all and that ‘things always and already have their meaning as this or that familiar and useful thing’ (60).

Certainly, in the early twentieth century, screens are an always-already present aspect of the world into which many children are born and, as such, they inform very young children’s emerging understanding of ways to be in the world, and others in that environment, in terms of familiarity, relevance and affordances. I would suggest, however, that their meaning and relevance as screens is not immediately apparent to infants and toddlers for whom all things are fresh instruments, the use, meaning and relevance of which is learned through their own ongoing activity in-the-world. That is, screens become relevant, familiar and useful to very young children in reference to social experience, patterns of everyday life, their own and other people’s orientational, postural, gestural and proximal actions towards, and the spatial and temporal rules surrounding engagement with screens. The world as it is for very young children is not the same as the world for older people; it is a world in which experiences are gradually enabled through parental or carer provision. Familiarity, usefulness and relevance are learned just as modes of attention are learned, in part through habitual and routine engagement with screens and not necessarily what is

screening on them. Attention is not a universal which is available to all in the same way, consequently in what follows I will examine and problematize attention as a concept and consider the ways in which attention differs for very young children from how we perceive it as adults.

### ***Problematizing the Notion of Attention***

Just as ascribing adult conceptions of relevance and usefulness to very young children is problematic, so too is attributing adult notions of attention. In the longitudinal study *Infants and Television* (1988), which was conducted in Sydney between 1988 and 1994 Cupitt and Jenkinson tracked the ‘use and experience’ of television and video by children, in the first two and a half years of their lives (Cupitt and Jenkinson 1998, 7). The authors make a distinction between watching television and being exposed to it. According to this distinction, being exposed to television means that the television is on when the child is in the room, whereas ‘watching’ is taken to mean a ‘sustained attention to, and comprehension of, content – as opposed to sporadically responding to visual and auditory stimuli’ (7). The mothers who participated in the study ranked their infants’ attention to and comprehension of television content, on a ‘five point scale from “hardly watches,” “watches a little,” “watches half the time,” “mostly watches,” to “watches with great concentration” ’ (7). The data suggested that in early infancy a large proportion of four month olds hardly watch or watch only a little television though many infants are exposed to television for an average of forty four minutes per day, increasing to sixty two minutes per day by the age of twelve months and eighty four minutes a day by the time they are two and a half (Cupitt and Jenkinson 1998, 7). By equating watching with attention, however, Cupitt and Jenkins rely on adult conceptions of attention and consequently do not consider that for very young children, attention is not only visual, but haptic, auditory and motile. Moreover, the very notion of ‘attention’ is problematic as it focuses on content rather than perception.

The distinction made by Cupitt and Jenkinson, between exposure to, and engagement with, media is a central theme in Anderson and Evans' *Peril and Potential of Media for Infants and Toddlers* (2001) prompting them to worry that television's capacity to produce orienting responses may have implications for young children's play. Accordingly they argue that:

visual and auditory changes, as well as motion detected in the visual periphery, can produce strong orienting reactions in which ongoing activity is suspended as the child orients to the source of the motion or change. (Anderson and Evans 2001, 12)

and that:

It is possible that such orienting reactions disrupt very young children's ongoing play schemes, making it difficult for them to resume sustained play at a mature level. (Anderson and Evans 2001, 12)

Yet, for very young children distraction, like play, is their mode of being and as discussed in the previous chapter, the argument can be made that distraction, in itself, is a form of play. Play specifically takes place in the liminal space of potential between introception and extroception as distraction.

As I have suggested, Introna and Ilharco (2006) suggest that screens screen not entirely by virtue of the content they carry, but rather they come into being as screens, attracting and holding our attention as:

focal entities, presenting, displaying, relevant content for our involvement and action in the world... Thus, a screen screens – captures our attention and holds it—in and through our particular involvements in the world (the world of entertainment, the world of work, etc.) (Introna and Ilharco 2006, 65-66)

As such, Introna and Ilharco argue that screens attract and hold our attention by creating and reinforcing an expectation of relevance. Certainly, the constant novelty of audiovisual stimuli sets up an expectation of relevant content, but to a very young child, the relevance of the content is analogous to the reliability of care, with its reappearing stimuli, which initially attracts their attention and then holds it, in anticipation of the next new thing (Anderson and Evans 2001). Thus

the orienting responses children have towards television may be considered as not only setting up an expectation of relevance but also of care, which is the basis of ontological security (Winnicott 1988). From here, we may surmise that the repetitiveness and reliability of television's almost constant presence in some homes might enhance children's 'confidence in the continuity of [their] experience' (Lally 2002, 28). Ontological security, however, is an outcome that resides alongside the potential 'insecurity' of inappropriate or frightening content. The ontological security of television is, therefore, precarious. This signifies another aspect of the complexity of television—it is both reliable and unreliable. Hence, ontological security, insecurity, and security in the presence of perceived violence, or all three are possible outcomes. Ontological security is a background relation; a way of experiencing which is not based on attention.

Certainly, very young children who are exposed to television may intermittently attend to content which is meant for adults when, say, a familiar song or sound is heard. Often though, for very young children, the banality of television content does not so much call to children, or us, but rather acts as background noise that accompanies other activities like play or conversations, which have little or nothing to do with the TV or its content. Consequently, exposure to and adult use of TV may just as readily impart the notion of television's irrelevance to children as it does its relevance. Hence very young children's as well as adult relations with television may oscillate between the types of relation proposed by Ihde – embodied, hermeneutic or background (Ihde 1975). For example, we may, through repetitive orienting responses come to master spilt attention—attending intermittently while doing other things—which is a particular mode of embodied perception. On the other hand, we may enter into a hermeneutic relation with television, 'reading off' media messages and making sense of our experiencing in relation to television, or we may have it on as background noise, to which we pay scant regard.





Figure 5.9 Modes of Attention Source: (ACMI)

It is also important to note that there are different, conflicting and contradictory ways of ‘watching’ television, not only with children but also with adults. These may range from the gaze of focused attention through to the occasional glance and the visually disengaged, as figure 5.9 illustrates.

The distinction between watching and being exposed to television may also not hold true when we consider that what a television affords a very young child is not the same as what it affords adults and older children. For instance, even when a television is not turned on, it affords a number of sensori-motor-affective opportunities to babies. To us, it may just be a box in the corner but to a floor dweller, crawler or toddler it may literally act as a mirror, reflecting the child, other people and aspects of the outside world, it may be a prop to assist standing or kneeling and it can act as an obstacle to reaching the world (power point, wires, dust, wall or toy) behind it. Hitting the screen with a bare hand, a peanut butter sandwich or a toy yields particular haptic, visual and auditory perceptions which may also engage a young child’s and others’ attention. Such actions, along with turning the television off and on, or changing channels, or turning the volume up or down also attracts attention and reveals television as an object surrounded by rules and hierarchies of use, mediating the domestic space. Hence, even without yet considering content, the screen may still call and hold a very young child’s attention, creating an expectation of relevance. As such, to consider television as worthy of research only on the basis of the content it carries is to overlook a more

fundamental engagement with the material objects with which we share the world and the affordances that these offer very young children. The assumption, then, that media may be somehow irrelevant to very young children misses the significance of media as mediating technologies, of background television, or television as a backdrop for everyday life and the flexible affordances of television sets. Therefore, while the distinction between exposure and engagement is potentially an important one, in terms of content, the relationship which very young children have with television is more complex, providing both content and context for children who are coming to grips with their socio-environmental environment.

As Lally remarks, ‘despite their ubiquity these everyday objects are, for the most part, completely taken for granted, forming an invisible backdrop to our day-to-day lives’ (Lally 2002, 26). The foregoing statement may seem somewhat contradictory to Introna and Ilharco’s statement that screens consistently draw and hold our attention, yet as we have already seen, attention is not a universal, especially as it relates to infants and toddlers. Through habituation we may not necessarily be explicitly and ongoingly aware of television’s presence, it is always there and on, waiting for us to attend to it, just as a toy may be put aside but remains there to be played with when the child is so inclined. In much the same way as we cease to experience our clothing, or the shape of the rooms and home in which we live, or as we cease to hear the hum of air conditioning, television is often just there as part of the background of our existence (Ihde 1990). That the human-television relation may just as readily be a background relation, as an embodied or hermeneutic relation, problematizes any straight forward attention and complicates any assertion of media effects.

While adopting background and foreground media as their preferred terminology Anderson and Evans (2001) agree with Cupitt and Jenkinson (1998) that background media become foreground media with children’s developing cognitive and linguistic skills which enable them to understand more media content (Anderson and Evans 2001, 11). Or, as Introna and Ilharco (2006) put it,

there is growing expectation of relevance. While children may ultimately come to attend more closely to television's audio and visual content as their cognitive and linguistic skills develop, along with their expectation of relevance develop, such an assumption overlooks other modes of attention, the blurry distinction between attentional engagement and varying modes of distraction. Distraction is a primary modality for infants and toddlers, and that when they do attend to screens they do so in ways which are different from adults or older children: prolonged attention is not possible for very young children. Adult relations with screens are embedded in ocularcentrism, a cultural conditioning of sense ratios which has not yet been learned by very young children. Focusing on the theoretical distinction between background and foreground media obscures the material existence of television and how it enters into very young children's ways of being and their developing capacity to rapidly oscillate along a spectrum of attention and distraction.

Assuming a background foreground distinction closes off the notion of oscillating attention and distraction. Likewise it occludes the materiality of television and how TV enters into very young children's ways of being along a spectrum of human-technology relations, in terms of rules and hierarchies of viewing, or how often and how much television other members of the household watch, who can control what is watched, what can and cannot be done to televisions, and the spatial arrangements of furniture and bodies around the television. Hence, the variable child-screen relation cannot be considered in isolation from the status afforded to screens in the child's socio-equipmental-environment.

Thus it is not only the screen in its screening which enters into infants' and toddlers' being with-in-the-world, which mediates their experience of the world and of the non-human and human others in the world (Introna and Ilharco 2004, 230). Seb, for instance at fourteen months, is very accustomed to television.

Kate, his mother, told me:

...probably because I've grown up with it myself, like the first thing I do when I get up in the morning is get him...his milk and then...I usually flick the tele on (excerpt from interview with Kate 19/11/05).

As part of Seb's learning to be with television, while Kate is heating his milk:

He knows when the milk has to come that he's got the couch, he's got a spot on the couch where he's got one of those u-shaped pillows and he goes in there and gets ready for his milk and the tele...(Kate 19/11/05)

By associating milk with television watching, Seb has started to learn the ways to watch as well as ways to be in relation to television specific to his socio-equipmental environment. This is further reinforced by the provision of the majority of his meals in his highchair in front of the TV. Hence, while we may come to attend to television, this is a learned habit, and not something that is innate. Moreover we learn ways of being-with-screens specific to our own socio-equipmental environments. Any expectation of relevance, comes with experience and regulation from which children learn how to be with screens.

## ***Conclusion***

Television as it relates to children's development has remained a vehemently debated field of research for over fifty years. Yet any impact it may have on children up to the age of three remains under researched. Furthermore, the little research that has been done tends to take findings in relation to older children and unproblematically apply them to infants and toddlers, hence it is often based around issues of content. Relying on content as the dominant mode of analysis, however, does not account for the primacy of perception, the ways in which television interacts with the rhythms and practices of everyday life, effectively reconfiguring time and space. Nor does it take adequate account of the complex, but primary relation between carer, baby and television which evolves and oscillates between attention and distraction—between embodied, hermeneutic and background relations.

Founded on the recognition that perception is the basis of meaning and conduct within the world Ihde's post-phenomenology offers us a way of considering how infants and toddlers make meaning of their lifeworlds in relation to television. Children, as well as adults, come to know environments, including where they

stand within and in relation to them, through repeated perception. That is, through repeatedly acting and being acted upon within the world in ways which become habits of being. Any potential effect which television may have on children's development must incorporate a more comprehensive understanding of the ontological and perceptual significance of television in the everyday lives of very young children. For this reason, to enable a more full bodied analysis of the potential effects that television may have on very young children it is important to return to 'the pre-objective order of the flesh' which is flesh of the world, our relation to which is expressed it through the postures, gestures and orientation of living bodies (McCleary 1964, xxi-xxii).

Referring again to Winnicott's notion of transitional objects, in this chapter I have argued along with Silverstone (Silverstone 1994) and others that television may be considered such an object, since it functions in many of the same ways as, say a teddy bear or a blanket, by intervening into the space of non-coincidence between carer and child, facilitating infants' developing understanding of themselves as discrete beings and fleshing out their world. Television, however, despite functioning in many ways like a transitional object, is also distinct from traditionally used and cited transitional objects. For instance, children would normally assume rights of ownership over transitional objects, but their rights of ownership over television is regulated and often contested. The ownership is shared with other members of the household. As a conduit for video tapes and DVD's, however, even very young children can assume 'my-time' and 'my-content' within the negotiated viewing time and space of shared ownership. The criterion of 'liveness' is crucial to television's function as a transitional object and while it does not necessarily afford warmth or a texture that we would normally associate with such objects, it nonetheless occupies a 'marginal status as a living thing' (Turkle 1984, 38). Television's sort-of-alive status offers a reliably reappearing constancy in an otherwise changing and uncertain world. Unlike many transitional objects, television does not lose its capacity to ease transition and remains with us, existing as a background of existential continuity, or

ontological security, resurfacing with varying degrees of affect throughout our lives as a persistent transitional object. Television also acts as a holding space or facilitating microenvironment, a comparatively safe space for children to experience their world, but also as a container of content.

In this chapter too, I have again used the concept of affordances, to suggest that we cannot attribute adult or older children's experiences of television to infants and toddlers who have not yet learnt the appropriate habits of interacting with television: what television affords older children and adults, is not necessarily what it affords floor dwellers, crawlers and toddlers, who may just as readily experience it as moving wallpaper, something into which to squash a peanut butter sandwich as they do a container for their favourite DVD, or something which calls and holds carers' attention and proximity to the screen. Hence, as Marsh suggests any potential impact that television may have on very young children's development is 'contingent and context-specific dependent upon the particular field they [are] located in at any one time' (Marsh 2005, 22).

By way of a phenomenological history of television, I suggested that content is imbricated in the context of viewing which includes hierarchies of viewing, the status afforded to screens and the ways in which time and space are reconfigured around the television, and consequently the ways that television enters into the rhythms and patterns of everyday life. By revisiting Lefebvre's (1991) theorizations around space as produced by, and producing activity within in it, we went on to consider in more detail the ways in which domestic space has been reshaped to accommodate television and how this has changed over time, creating and recreating television spaces. The ways in which space is produced and ordered hierarchically around the TV set was discussed as a means of illustrating how television may mediate how and where very young children may be in the domestic environment. At this point, televisual content's importance became apparent, not in that the content may help or harm infants and toddlers but how it effects parental perceptions and management of TV-watching and very young children's bodies.

Subsequently I offered a perspective on the phenomenological implications of living in a screened world, as television is a precursor for later screens which will be discussed in the next chapter. Introna and Ilharco (Introna and Ilharco 2006) propose that screens attract and hold our attention, creating an expectation of relevance. I argued, however, that while TV may, in some instances, function in this way, there are variables not taken into account in Introna and Ilharco's analysis, such as the variable spectrum of attention in relation to very young children, the context of viewing, the status afforded to screens, hierarchies of viewing, the content that is screening, and very young children's primary ontology which precludes focused attention, calling Introna and Ilharco's formulation into doubt as it relates to infants and toddlers. Despite television's potential to attract and hold attention which may have implications for carer-child relations, Introna and Ilharco do not take account of the fluidity of our relations with television which oscillate rapidly between embodied, hermeneutic and background, and between attention and distraction. Within these relations, TV content is a confounding variable which can change the dynamic around the television set, while sound also has the potential to illicit orientation responses. Nevertheless, repeated orientation, whether that comes from sights, sounds, or following other people's turning towards screens may form the basis of body habits which incline very young children towards the TV. Ultimately this chapter has argued that, like all material objects television mediates very young children's experience in and of the world but it does so in complex ways which are particular and specific to the medium itself. Yet, television like other mediating technologies, exist along a spectrum of affordance relations.

Many infants and toddlers are now growing up in an environment where the television is almost always on and while very young children may attend to the content sporadically, adults and others in children's socio-equipmental environments do. Television enters into the spatio-temporal arrangements in the home, shaping patterns of engagement with the television and the others in the environment, informing children's emerging understandings of ways to be-in-the-

world. As such, we can no longer regard television as purveyors of content which very young children do not yet understand on a cognitive level, but rather as material objects which exist along a spectrum of mediating technologies, all of which enter into very young children's experiencing, functioning as a transitional object and a facilitating microenvironment. Television informs very young children's turning to screens as a fundamental mode of being, a theme which will be developed in the upcoming chapter on mobile phones and tablets.



## *Chapter 6*

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# *From Telephones to Mobile Media: Infants, Toddlers and Interactive, Screen-based Digital Technologies*



## *Infants, Toddlers and Interactive, Screen-based Digital Technologies*

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Today—20 years after the birth of the World Wide Web, 13 years after the launch of Google Search, eight years after the start of the first social networking site, six years after the first YouTube video, four years after the introduction of the first touch-screen smartphone, three years after the opening of the first ‘app’ store, and a little over a year after the first iPad sale – the media world that children are growing up in is changing at lightning speed. Nine-month-olds spend nearly an hour a day watching television or DVDs, 5-year-olds are begging to play with their parents’ iPhones, and 7-year-olds are sitting down in front of a computer several times a week to play games, do homework, or check out how their avatars are doing in their favorite virtual worlds. Television is still as popular as ever, but reading may be beginning to trend downward (Rideout 2011, 7)

As the foregoing quote confirms, there can scarcely be any doubt that the socio-equipmental environments in which infants and toddlers are raised have significantly changed from those of even a decade ago. Over the last ten or so years, not only have the number of television sets increased to a point where it is a rarity to only have one set per household, this acceleration has also seen a rapid increase in the number of homes for which a personal computer is a vital inclusion. As long ago as 2004, when Gerard Goggin edited *Virtual Nation: The Internet in Australia* (2004) computer screens had already become ‘a part of the everyday lives of many’ (Goggin 2004) and were rapidly becoming part of the context of infancy and toddlerhood. The increasing affordability, miniaturization, mobility, networkability and consequent proliferation of screen based media devices such as mobile phones, iPods, Blackberries, personal DVD players, PVRs, tablets and hand held games has interesting and important implications for very young children’s being.

This chapter explores the ways in which infants’ and toddlers’ experiences of the world are at least partially shaped and textured by the incorporation of interactive and mobile screens as ubiquitous aspects of their lifeworlds in the early twenty first century. Initially I will discuss the terms ‘televisual technologies’, ‘virtual

space' and 'new media'; the latter often used interchangeably with digital and/or interactive media, both mobile and not. In doing so I will explore definitions of new media, which have been modified over time to reflect the changing characteristics of the types of media devices to which I will refer and signalling how these changes intersect with very young children's experiences within their socio-equipmental environment. From there I will explore how telephonic technologies have transformed from their fixed line auditory communication beginnings to the visual, haptic, auditory, mobile media technologies that have acquired the status of 'snug and intimate technosocial tethering' devices (Ito 2005, 1). In doing so I will extend Ito's 2005 characterisation of phones as 'personal device[s] supporting communications that are a constant, lightweight, and mundane presence in everyday life' (Ito 2005, 1) to include their capacity to carry media content and how this plays out in the lives of very young children. This will lead us to consider how the prominence and affordances of new media situate ever younger children as users and create multiple and diverse media spaces which infants and toddlers come to inhabit.

Ultimately I will offer a descriptive analysis of my observations of very young children's engagement with mobile and digital technologies, to illustrate that media effects are not universal or straightforward, but rather are complex and diverse. The analysis will take account of materiality (including texture), transitional objects, affordances and containment within facilitating microenvironments. This will be done to suggest that 'new media' represents another layer of mediation which is different to other material objects but which exists along a continuum of mediating technologies. This spectrum extends to encompass the socio-equipmental environments which very young children inhabit in its entirety. In doing so I will suggest that these media shape very young children's experience in ways that are specific to the types of objects they are, including their capacity to invoke virtual space and enable telepresence, two concepts which will be examined in the upcoming section.

## ***Virtual Space, Telepresence and New Media.***

Prior to moving on to discuss interactive mobile media in depth, it is worthwhile devoting a few words of clarification to the terms ‘virtual space’ and ‘televisual media’ since television, telephones and interactive digital media are all implicated in the terms. While we cannot know if or how very young children experience virtuality and telepresence, it is important to understand how these effects are experienced by carers and others within infants’ and toddlers’ socio-equipmental environments to illustrate how time, space and attention are apportioned, and the consequences of the incorporation of telepresencing technologies into the everyday lives of very young children.

The prefix ‘tele’, which comes from the Greek ‘*telos*’, refers to distance, or operating at a distance, particularly in relation to transmission over geographic space. Television, thus, literally means ‘seeing at a distance’ and implicates a range of media, which enable or enhance our capacity to see at a distance. As such television is revealed as not only a medium but also a way of seeing. Television—as a way of seeing—creates a capacity to view distant times and places, but it confounds our sense of place as geographically rooted in the physical space which our bodies inhabit. Yet, in doing so, it fosters an ‘as if’ perceptual horizon: as if we were there in that place. The ‘as if’ or ‘in between’ space is a virtual space which is often associated with video and computer games but is just as appropriate when speaking about other televisual technologies. Television, as a way of seeing, emerges out of virtual space, or the space in between the screen and the viewer.

Virtual, or ‘as-if’ space may just as readily be considered as the space of non-coincidence—*écart*—in Merleau-Ponty’s phenomenology, and potential space in Winnicott’s psychoanalysis. Merleau-Ponty suggests that virtual space is defined by a person looking to where another person is pointing, enabling both to see the object or event being shown, at the same time but from slightly different perspectives (Merleau-Ponty 1964a, 116). This sets up a chiasmic intertwining with other people and the world by establishing a space of virtual coincidence, hence a relation of intersubjectivity, and shared perception is enabled. Virtual

space accordingly presumes that we inhabit space which extends beyond our bodies and that it is ‘a centrifugal and cultural space’ (Merleau-Ponty 1964b, 7). That is, it is a space that is constituted by, and constitutes shared understandings of the world which derive from the object or event and are distributed to those viewing it. This is particularly notable in relation to TV, where each member of the audience has access to what is screening, or shared perception, but it does not obviate each person’s particular perspective or point of view. Virtual space, therefore, acts in concert with our embodied situatedness within the world enabling us to perceive what others perceive, and reinforcing very young children’s understandings of both connectedness and separateness. Televisual technologies are therefore excellent examples of technologies which create virtual spatial environments.

Virtual space which emerges from our engagement with televisual technologies is thus superimposed upon physical, geographical space, such as the lounge room for example. It is also a space which is produced by human activity in relation to the screen which sets up a ‘system of correspondence’ between our own spatial situation and that of others (Merleau-Ponty 1964b, 7), enabling us to be virtually with human and non-human others from places and points of view that our body is not, and often cannot be (Weber 1996, 116).

‘Virtual space’ and ‘telepresence’ are generic terms which may be applied to a wide range of technologies and phenomena that create an illusion of presence-at-a-distance. Televisual media may, therefore, be anything from television and the adjunct technologies of DVD players and game consoles, to web cameras and their concomitant internet and computer screens, through to smart phones and tablets. Televisual technologies and more specifically interactive televisual technologies, in combination with human activity, therefore produce virtual spaces: potential spaces in which to act and interact (Morse 1998, 17). Virtual space, and telepresence however, do not only emerge from televisual technologies, but also from telephonic devices with which we interact.

As Margaret Morse, in her seminal work *Virtualities* suggests, ‘interactivity is a kind of “suture” between ourselves and our machines’ (Morse 1998, 16). In using

the term ‘interactivity’ Morse refers specifically to our capacity to engage with the medium to facilitate an outcome which is often communication based. For example interactivity as it relates to a telephone involves an engagement with the technology to facilitate a virtual engagement with distant others. As Morse points out, in relation to telephones, virtual space is the ‘no place in which...two [or more] people...meet’ (Morse 1998, 17). It is a space which opens between interlocutors, which creates a correspondence or intersubjectivity, allowing us to ‘meet’ and become involved with distant and near others and places simultaneously. For Zhao and Elesh (2008), co-location is ‘a spatial relationship’ while co-presence is a social relationship which ‘renders people mutually accessible for contact’ (565). Interactivity as it is referred to here, thus allows us to be copresent with others in virtual space who are not necessarily co-located (telepresent) affording a capacity to act and interact in places in which our bodies are not.

Our experience of ‘virtual space’ and ‘telepresence,’ are had by way of metaphors of embodiment (Lakoff and Johnson 1980) which are grounded in our experiences of being-in-the-world as forward facing bipeds with opposable thumbs, who have a capacity for locomotion, reach and communication. For example, we experience telepresence in virtual space in terms of up, down, forward, backward and left to right, just as we do in physical space. ‘Telepresence’ and ‘virtual space’ are emblematic of our embodied experiences of action, movement, interaction and inhabitation in physical space, as mature embodied human beings. The incorporation of sound, vibration and an accelerometer to mimic our embodied experiences of physics (gravity, movement and direction) in smart phones and tablets further our feeling of immersion in virtual space and our experience of telepresence. In doing so, they compensate for the haptic aspects of our embodied experiences in physical space which would not otherwise be available in virtual space.

It is important to recognize that physical space and virtual space are no more mutually exclusive than are co-presence and telepresence. Rather, both virtuality and ‘reality’ are perceptual experiences which are enabled by embodiment as are co-presence and telepresence. To experience anything, including virtuality, is

predicated on being a body, and we cannot separate perception out from our embodiment which is necessarily and inescapably embodied-being-in-the-world, along with all the sensory perceptions that implies. Although virtuality and ‘reality’ are discursively constructed in opposition to each other, once we have come to inhabit the technologies which facilitate telepresence, they are experienced concurrently with our attention oscillating rapidly between telepresence and co-presence. This is particularly notable in the case of networked and location aware devices configuring hybrid experiences of presence and telepresence through ‘net locality’ (Gordon and de Souza e Silva 2011). As Gordon and de Souza e Silva elaborate:

Net locality implies a ubiquity of networked information—a cultural approach to the web of information as intimately aligned with the perceptual realities of everyday life. We don’t enter the web anymore; it is all around us (Gordon and de Souza e Silva 2011, 2)

Twenty first century mature humans who have learnt habits of oscillating attention, colocation and co-presence, allowing for alternation between modes of presence, in some instance prefer telepresence over presence in the actuality of ‘RL’ (real life) (Turkle 2011, xi). We cannot know if very young children experience virtuality and telepresence, or if they experience it in the same way as adults do, yet the ‘presencing’ effect enabled through tele-technologies has implications for very young children in terms of carer attention. As adults, having learned habits of being-with tele-technologies, our attention oscillates rapidly between screens and other activities, sometimes calling and holding our attention, and becoming the focus of our concern, and other times acting as moving wallpaper or background noise. Now, with several networked teletechnologies devices in many homes, calls for attention come from an abundance of sources with varying degrees of urgency implicating the speed and constancy of shifting modes of presence and attention. This effect is further amplified in the case of mobile devices which are taken with us wherever we go as ‘intimate’ aspects of our embodiment (Merleau-Ponty 1968).

The foregoing, while having discussed virtual space and telepresence, has not yet considered what we mean by the term, ‘new media’, nor the characteristics of devices which enable virtual co-presence. Therefore, I will now briefly consider



what we mean by the term and its connection to virtuality and telepresence. In using the term ‘new media’ we may too readily equate it with any media which is novel (Flew 2008, 1) but as Lev Manovich points out, and as experience tells us, new (taken as novel) media are not new for long (Manovich 2001). Nonetheless, the characteristics of computer and media convergence, networkability, mobility and interactivity are particularly significant to our understanding of the type of object that new media is, by comparison to older media such as television.

At this point it is worth considering the concept of convergence by way of clarification of the term ‘new media’. Lev Manovich (2001) suggests that the merging of computers and media technologies lay at the heart of any attempt to define ‘new media’ (20). Much has happened since 2004 when the mobile phone screen was lauded as the ‘third screen’ ‘[n]ext to television sets and computers monitors’ (Ives 2006). Gerard Goggin (2006) notes that:

The coming together of photography and telephony in the form of the camera phone is only one part of the merging of formerly distinct communications platforms, technologies, audiences, and cultures in which cell phones and mobile technologies are being fervidly embraced, if not fetishised. (Goggin 2006, 162)

The above quote, taken from the chapter *Mobile internet and television*, speaks to the notion of ‘mobile convergences’, or the transformations which have taken mobile phones from solely telephonic devices, to tools which are capable of a number of functions including accessing the internet and watching television.

Perhaps the operative word in the foregoing quote is ‘segment’ as it speaks to a particular market niche, and thereby calls into question the notion that smartphones will, or have become, the primary, or only, screen. As Goggin rightly notes while the term ‘convergence’ may have been useful in the 1990s, its validity has since been called into question due to the inherent divergent use of convergent media. As Henry Jenkins, Sam Ford and Joshua Green (2013) argue, there are multiple conflicting and complementary media systems ‘whose intersections provide the infrastructure for contemporary communication’ (Jenkins, Ford, and Green 2013, 39). Even as long ago as 2001 Jenkins argued that convergence is not an ‘end state’ but rather a period of flux which will lead

us to both homogeneity and diversity, through divergent and convergent uses of burgeoning and multiple technologies which we will use in relation to one another (Jenkins 2001, 93). Hence Jenkins suggests that media convergence ‘represents a cultural shift as consumers are encouraged to seek out new information and make new connections among dispersed media content’ (2006, 3) rather than a technologically enabled functional amalgamation of media in one device (3).

The term ‘new media’ has been in use for nearly twenty years, when it referred to ‘the Internet’ (Sikes 1997, xiii) or even computers, which by then had become routine despite being less than a generation old (Fidler 1997, 2-3). Manovich’s *The Language of New Media*, is limited by the historical context in which it was written; where ‘conditions of the production and distribution of knowledge were rather different than they are today’ (Galloway 2011, 377). For this reason, despite Manovich’s comprehensive treatment of ‘new media’ he does not account for the developments in media technologies which have occurred since, where computers, media and communication are all afforded in multiple, diverse, individual devices. Increased mobile phone speeds, web-capable and location aware devices, and the development of the internet have undoubtedly led to the ‘convergence between communications and computing’ as it was initially proposed by Manovich (West and Mace 2010, 275; Manovich 2001). As Joel West and Michael Mace tell us:

Based on the evolution of the communications and computing industry, a vision of mobile convergence devices emerged in the 1990s that provided voice and data communications in a mobile computing-enabled device. These devices arose from the confluence of mobile phone and personal digital assistant (PDA) design paths, and today the category is normally referred to as the ‘smartphone’ segment of the mobile phone market (West and Mace 2010, 275)

Nicholas Gane and David Beer (2008) adopt as their preferred definition of new media one which was forwarded by Tony Feldman (Feldman 1997) in relation to digital media more generally (Gane and Beer 2008). Of particular significance Gane and Beer note that the manipulability of digital media, ‘at the point of delivery [as well as production] means something quite extraordinary: users of the media can shape their own experience of it’ (4) enabling user-generation and customizability of media content. Networkability is another key aspect of ‘new

media' which further enables telepresence but also content sharing in through means which have only relatively recently become available. The incorporation of Web 2.0 service provision, which enables uploading and sharing of content, into mobile phones and tablets, allows users to produce and share as well as consume online content informing our understanding of the term 'new media'. Viewed together, the characteristics of networkability and manipulability afforded by Web 2.0, and its incorporation across a number of platforms, has empowered users to exercise greater control over content than ever before. This is particularly relevant in reference to very young children's experiences as it means that personalized content can be created and consumed, which literally speaks directly to them and which can contain places, people and things with which the child is familiar. For example, photos and videos can be created stored and shared through a range of social media, but children can also interact in real time with significant others via *Skype*<sup>TM</sup> or Apple's *Facetime*. Talking to Granny on *Skype*<sup>TM</sup> or *Facetime*, viewing, sharing and manipulating user generated content via applications such as *Face Changer*, *Hair Style*, *Instagram*, *SnapChat*, *Facebook* and *YouTube*, add a creative or productive element which distinguishes new media from their predecessors.

The extent of the interaction and control afforded, particularly over the content contained, consumed and shared through new media devices make them distinct from television in significant ways, and have a potential to shaped very young children's perception and ontology. For example, infants and toddlers, like adults, may now interact with distant others in real time. While this has been something that could be done on the telephone, today's mobile media are also visual, web-capable, location aware and 'always on', always handy.

Morse states in relation to computers that screen-human relations are 'bubbles or pockets of virtuality in the midst of the material world' (Morse 1998, 7), and in doing so, speaks to our experiences of and with virtual spaces, as containers or facilitating microenvironments (Sofia 2000). It is here, however, where the datedness of Morse's claim is most apparent as it cannot take account of the hybrid experience of presence, co-presence and telepresence, or the rapid oscillation between virtuality and co-location enabled by a plethora of newer

technologies, including those which are location aware (Gordon and de Souza e Silva 2011).

Referring specifically to screen media, Morse notes that machines' capacity to respond and feedback almost instantaneously, produces an impression of 'liveness' (Morse 1998, 15). Hence such interactivity underlines the capacity of 'new media' to fulfil the role of transitional objects. Complete with the impression of aliveness, familiarity and consolatory presence, new media flesh out the lives of infants and toddlers as they fill the space of *écart*, informing children's perception and understandings of being-with-media, just as they do for adults. By affording generation, manipulation and sharing of media content, these mediating technologies reconfigure children as producers and creators as well as consumers of media content through, for example, Xeon or YouTube. Hence, for the purposes of this chapter, I have taken new media to mean interactive, digital and often screen based media like mobile phones, video and computer games, tablets and other interactive technologies, many of which are not designed specifically for very young children but which have nonetheless entered into the socio-equipmental environments into which they are born.

Morse's (1998) description of interactivity as 'a kind of "suture" between ourselves and our machines,' which was referred to earlier, despite being rather dated, remains useful. Above all, such imagery resonates with the ways in which we incorporate a range of material objects into our being, particularly with repeated use (Merleau-Ponty 1962). Hence, it allows us to reframe interactivity as a chiasmic intertwining between users, and both media content and technologies (Merleau-Ponty 1968). The very term 'usage', however, becomes questionable in relation to very young children, as it implies a level of conscious intention which is not necessarily evident in their undifferentiated exploration and discovery of their socio-equipmental environment. Nonetheless, the built in approximation inherent in touch screens, configures ever younger children as users, enabling possibilities of use which would be constrained in the use of a joy stick, keyboard or mouse, by their developing corporeality. In the upcoming section, therefore, I will explore how telephonic media have changed over time to ultimately

incorporate web-capability, media content and touch screens, situating ever younger children as users of new media.

### ***From Telephones to Peripatetic Media: Phenomenology of Telephone Use***

Despite the problematic use of the term ‘convergence’ the delineation between media technologies and functions cannot be as readily sustained as it may have been ten or even five years ago. After all, a television set is no longer merely a television, which receives broadcast content, but a monitor, which also receives cable and in some cases interactive television, can be used to play games, videos and DVDs, and also be used as a computer monitor, displaying home movies and slideshows of family or familiar things. Likewise, a telephone is no longer just a phone, but a mobile multimedia apparatus which incorporates a mobile phone with instant messaging options, a music player, computer screen, TV screen, access to the internet, a calculator, a camera, a video camera, a clock, a calendar and a games console.

Telephony, by definition, is the technological enablement of our capacity to converse remotely in virtual space. As such, telephones set up an aural intertwining in virtual space. In the past, voice communication across distance facilitated by the telephone necessitated particular adjustments to our gestural comportment so that the receiver was held in one hand or the other and placed to an ear, from where the mouthpiece roughly coincided with the mouth enabling both speaking and listening. In doing so, we set up an embodied relationship with the telephone, insofar as the apparatus acted as an auditory and vocal extension of ourselves and positioning bodies in certain ways. Once habitualised, it becomes an aspect of our embodiment (Merleau-Ponty 1962).

Prior to cordless and mobile phones, it was also necessary for us to situate ourselves in close proximity to the phone outlet. Doing so still allowed fairly flexible postures and orientations. For example, as a teenager, I would lie on my back on the floor with my feet against the wall while talking on the phone. Yet it constrained other possibilities, like moving around the room or the house, not to mention going outside or taking it further afield. The advent of cordless phones

afforded more flexible mobility, yet the necessity to use one hand to hold the phone to an ear still constrained our ability to engage in other activities.

The first commercially available mobile phone was put into operation in Tokyo in 1979 and this saw the beginning of a change to the ways that we experience telephony. In 2007 Australia had the highest incidence of mobile phone ownership in the Western world (Downie and Glazebrook 2007, 3). The *Australian mobile device ownership and home usage report 2014* suggests that this high rate of ownership persists with ‘65% of Australian adults (those over 18 years of age) owning’ a smart phone (Deepend 2014,10). The Australian Communication and Media Authority (ACMA) suggests further, that ‘at June 2013, there were 31.09 million mobile services in operation in Australia’ (abs.com.au). Within eight years of the inception of the mobile phone, over one million subscribers worldwide had taken up the option (Downie and Glazebrook 2007). This has now increased to 6.9 billion subscriptions (Mobiforge 2014).

Mobile phones, at least in some instances, have many of the advantages of cordless and hands free phones while affording additional mobility (as the name implies). In order to use it as a telephone it is still, in most cases, necessary to hold the device to our ear, however many now have a capacity for Bluetooth speakerphone which modifies those particular postural, gestural and orientational constraints.

To suggest that the text messaging function of mobile phones revolutionized telecommunications is not an overstatement. Not only did it transform communication practices using truncated short messages but it transformed phones from solely auditory devices to audio visual ones. The incorporation of a screen into mobile phone design potentially attracts and holds our audiovisual attention more closely than previous phones had done. Relying on Ihde’s conception of human technology relations, Robert Rosenberg (2010) suggests that phone use employs a combination of embodied and background relations in what he calls *field composition*, which he elaborates as ‘a technology’s potential to reorganize the overall structure of one’s field of awareness as the technology is used’ (Rosenberg 2010, 66).

With the additional capacity to text message, take photos and play games built into even the most basic contemporary phones, Turkle suggests that we increasingly incline towards the phone and away from other elements of our lifeworld, as can be inferred from figure 6.1 (Turtle 2011). As such, she argues that it is common to encounter a group of people who are co-located, yet are primarily engaged with their mobile phones rather than the people physically within the group (Turtle 2011). Hence in figure 6.1 certainly there may be sporadic close attention to the phone screen but this is interspersed with conversations about what is on screen, screen sharing and moments when the screen ceases to be attended to at all. This calls into question Turkle's claim that human-technology engagement effaces human-human engagement. For example, mobile phones may be passed around in a group to share the content on one device with co-present others. This ready oscillation of attention is typical of our experiences with mobile phones. Parents and friends likewise will often share photos or videos they have taken of themselves, their children or other significant others with their infants and toddlers, which creates a shared experience and encourages a level of intersubjectivity specifically enabled by the device. Hence, being able to video call, send and/or store photos has the potential to enhance or constrain being-with either at a distance or proximally near depending upon the context and content.



Figure 6.1 Co-located Friends on Mobile Phones

With the advent of mobile phones comes an increased expectation that we will be available to distant others whenever and wherever they are inclined to make contact, and while content is not the focus of this thesis, an ability to share photos,

jokes and videos, enhances the appeal of the telephone. As Turkle notes, the mid 1990s marked ‘the development of a fully networked life’ (Turkle 2011, xii) and:

As connections to the internet went mobile, we no longer “logged on” from a desktop, tethered by cables to an object called a “computer.” The network was with us, on us, all the time. So, we could be with each other all the time. (Turkle 2011, xii)

The term ‘tethered’ in the foregoing quote deserves a few lines of clarification as it has a number of varied interpretations which are significant. Although the quote refers specifically to being tethered to a particular location by the need to be physically attached via cables to a ‘base station’ Turkle also uses it to discuss our ability to be ‘present’ to our children when we are not collocated (Turkle 2011, 155).

Tethering, to distant others through mobile phones can also be construed as a tethering to the device itself. Consequently, Turkle suggests that ‘we bend to the inanimate with new solicitude’ (Turkle 2011, xii). This literal and metaphorical bending or inclination towards mobile phones can readily be seen in the above photo and is a mode of chiasmic intertwining (Merleau-Ponty 1968). The term ‘tethered’ speaks to the concept of connectedness (Turkle 2011) and reinforces the notion that new technologies, like older ones, function in some respects like transitional objects, facilitating exploration and discovery while simultaneously introducing children to their socio-equipmental environment without completely severing ties with carers. As we have seen, the process of maturation is characterized by infants’ movement from a state in which they are unaware of themselves in their separateness, experiencing themselves and their world indiscriminately, to one of awareness and ability to act in, and manipulate their environment with *some degree* of intentionality and independence (Lally 2002, 29 emphasis added). As Ito points out, our relations with mobile technologies, or ‘*keitai*, [which] roughly translate[s] to “something you carry with you”’ in many ways constitute ‘a snug and intimate technosocial tethering’ (Ito 2005) which is a quality of transitional objects.

Mobile phones are also often given to young children as a distraction, or to ease the anxiety, stress or boredom of a particular situation, or facilitate separation as



are other transitional objects. Often an old phone which is relegated to the child, but if it works at all it can become a precious plaything, made all the more so because it is a 'grown-up' quasi-toy. In this respect too, mobile phones take on some of the characteristics of transitional objects. That is, they may be experienced by the child as a quasi-possession, albeit one that must be surrendered upon request; they can stand in for a carer, to enable discovery and fill the space between carer and child, but also due to their capacity to simulate aliveness through their audiovisual capacities. As such, for very young children, the experience of a mobile phone is not necessarily about communication, but rather as a transitional object which resembles Ito's (2005) *keitai* (1).

If the phone is still connected it may only be given to the child under strict supervision. The 'toy' may become even more precious again because the owner will undoubtedly keep checking to make sure that the child has not indeed called someone accidentally or doing anything else potentially damaging to the phone, like throwing or chewing it. In this respect, a mobile phone may resemble a television, where regulated rights of ownership are conferred on the child, but the value of the technology may lead adults to ensure that children do not 'hurt' or 'kill' the phone, furthering the impression of quasi-aliveness. The attention which is directed at the phone-child couplet may, in reference to past experiences of attention, be taken by the child as an extension of nurture, and simultaneously reinforcing that their engagement with the phone is the appropriate way to be-with-phones.

While we use the term audiovisual when we talk about media, research tends to focus, primarily, on the visual aspects of the media. The only exception to this in relation to children and the media, is when critics argue that the seemingly nonsensical sounds made by the characters in TV shows like *Teletubbies* and *Boobah* 'corrupts language' (1998). The ability of mobile phones, however, to play sounds adds another interesting and significant dimension to our understanding of very young children's experiences of them. While mobile phones are by no means unique in this respect, their capacity to play an array of sounds from random single notes to songs and ringtones offer very young

children an aspect of play that was not present with fixed land line phones nor the majority of older cordless phones.

Before moving away from telephones to discuss other forms of interactive digital media in more detail, it is worth considering the phone-as-toy to help flesh out our understanding of the ways in which phones enter into the rhythms and experiences of infants and toddlers socio-equipmental environment, informing their understanding of ways to be-with-phones. Very young children are also often given toys shaped like telephones, to practice using a phone: learning habits of being that they will deploy when they get older. Toy telephones, however, have changed over time to reflect changes in actual telephones as can be seen below. Over time they have gone from rotary dial phones (as shown in figure 6.2) to mobile (figure 6.3).



Figure 6.2 Rotary Dial Toy Phone



Figure 6.3 Toy Mobile Phone

Toy phones can be used safely—without any risk of an hour-long phone call to another country. This reinforces the notion that technologies or technological ensembles act as safe, facilitating, holding microenvironments and that they fill the potential space between caregivers and very young children, fleshing out their

lived experiences and filling the indeterminate space between the me and the not-me. Many of these toy phones too, incorporate physical characteristics of faces or bodies, which coupled with the capacity to play sounds, gives them the appearance of having a life or reality of their own, rendering them ideal as transitional objects.

Telephones, like televisions have a capacity to call and hold our attention, yet they may only do so sporadically. Hence it is not only screens but tele-technologies generally which have potential to facilitate oscillations of visual, auditory and haptic attention and distraction. While Anderson and Evans (2001) argue that media may ‘distract’ young children from play scenarios, I argue that, for very young children, it is difficult to distinguish between play and distraction as both distraction and play are fundamental ways of being for them. In the upcoming sections, I will consider the implications of the dynamic of attention and distraction of new media in terms of their potential holding power, but also how they may distract parents’, carers’ and children’s attention, facilitating a spectrum of attentional possibilities implicating not only distraction, but also screen sharing and/or looking together.

In the upcoming sections I will discuss the ways in which interactive digital media as an always-already present aspect of very young children’s existence in the early 21<sup>st</sup> century may intervene into their development, potentially amplifying and reducing their experiences of the world. This will be done by describing scenarios in which various interactive touch-screen technologies are used with varying degrees of expertise by young children. Each scenario will draw together the themes of containment, facilitating microenvironments, affordances and embodiment, which have emerged throughout this thesis.

### ***Interactive Digital Technologies in the Lives on Infants and Toddlers***

Interactive digital technologies have become an increasingly significant aspect in the lives of infants’ and toddlers’ in the last couple of decades, yet Rideout (2011) suggests that ‘TV continues to dominate children’s media use’:

Time spent with new mobile media, while gaining lags far behind larger screen media among this age group. Children 0-8 spend a total of just five minutes a day using cell phones, iPods, iPads, or similar devices to play games, watch videos, or use other “apps”. (Rideout 2011, 11)



Figure 6.4 Baby and Laptop Computer (Van Camp 2011)

Based on an online survey of 1,384 parents with children up to the age of eight years conducted in 2011, Rideout suggests that children under one year old do not play video games, watch television or videos on a computer, mobile phone or tablet (Rideout 2011). Yet 4% have used a computer, 3% have played console games and 10% have ‘used handheld game play, cell, iPod, iPad for games, apps or video’ at some time (Rideout 2011, 18).

Figure 6.4 was initially sourced from a Google Image search and comes from a page entitled *Digital Trends*, a website authored by Jeffrey Van Camp (Van Camp 2011). The site, formerly called *Designtecnica Corporation* offers consumer news, reviews and guides of electronic and digital devices. The picture was the representative image that accompanied a news story *Study: Kids Learn How to use the Web Before they can tie their shoes* (Van Camp 2011). The story reports on a study commissioned by internet security company AVG in 2010 which surveyed 2200 mothers with internet access (Van Camp 2011). The study suggests that by three years of age 57% of children are able to turn a computer on and off, 25% can make calls on a mobile phone, 58% know how to use a mouse, 44% can play basic online games, 18% can open a web browser, 4% know at least

one email address, 9% know at least one web address and 17% ‘can operate at least one smartphone or tablet application’ (Research Now 2010).



Figure 6.5 Baby with Mobile Phone (Peabody 2013)

A quick Google or YouTube search yielded thousands of photos of very young children engaging with digital and mobile technologies, suggesting that it is not as uncommon as Rideout et al., (2011) indicate. As use is undoubtedly increasing, the effect of computer and mobile media on very young children becomes more significant yet remains under researched. As AVG suggest, even before birth, and certainly shortly afterwards, children born in the early twenty first century are already enmeshed in a world where interactive, digital technologies are a crucial aspect of what and how any of us can experience our existence.



Figure 6.6 Baby Chewing iPad (Powell 2012)

When traced back to its source the image in figure 6.6 comes from a blog entry entitled *Baby Tech: Cool Tools for Raising a Child in 2012* (Powell 2012). The blog, which is strangely authored by a real estate agent, outlines, as the name suggests, ‘cool tools for raising a child’. The blog initially goes into the services that Amazon.com offer for parents including Amazon Mom subscriptions which deliver savings on products and shipping from their baby store. Of more

relevance, however, the page also refers to the iPad and its contingent applications. The blog offers us interesting insights into the various ways in which such devices may intervene, both directly and indirectly, into the lived experiences of infants and toddlers. For instance, Powell writes that:

The iPad is great for anyone, but it makes sense for new parents because of its ease to hold and use. A mom who is nursing or a dad who is rocking a baby to sleep can scroll with one hand. (Powell 2012)

As discussed in Chapter 3, some of the intimacy of feeding and holding is established and maintained through eye contact. Powell's suggestion adds a layer of mediation between carer and child where colocation and co-presence are not necessarily interdependent, but rather attention may potentially oscillate between physical and virtual worlds.

Much of the research surrounding interactive digital media deals with older children and adults. Yet, the ways in which these same technologies mediate infants' and toddlers' experiences of the world is also significant. In what follows, I will describe three situations of interactive digital media use by very young children from my observations and interviews. These observations and the descriptions forwarded are consistent with the phenomenological method of 'thick' description (Merleau-Ponty 1962) which facilitates our understanding of how mediating technologies enter into very young children's experiences of everyday life. The scenarios also serve to support the sensory ethnographic methodology proposed by Pink (2007), which holds that:

Ethnography is a process of creating and representing knowledge (about society, culture and individuals) that is based on ethnographers' own experiences. It does not claim to produce an objective or truthful account of reality, but should aim to offer versions of ethnographers' experiences of reality that are as loyal as possible to the context, negotiations and intersubjectivities through which the knowledge was produced. (Pink 2007, 22 cited in Pink 2009, 8)

In what follows, we will consider an example which illustrates some of the ways in which mobile phones enter into infants and toddlers ontological and perceptual experiences of through detailed description of the first of three situations. This will be followed by a more complex account of the ways in which media devices may be considered as container technologies (Sofia 2000) and the multiple levels

of containment in contemporary family car trips. Finally, a description of the ways in which tablets facilitate particular perceptions, and ways of being in relation to the technology will be offered.

### ***Scenario One—Infants, Toddlers and Mobile Phones—Jenny and Caleb***

A friend and I recently caught up for a coffee and a chat. Jenny brought her five month old baby boy, Caleb, with her and parked him in his stroller next to the table. When he got restless Jenny initially handed him a toy which kept him quietly amused for about five minutes before he became restless again. Jenny repeated the process several times and then gave Caleb her mobile phone to play with.

Jenny's phone is an Android, which is an operating system designed specifically for use with smart phones, tablets and other touch screen technologies. Initially financed and now owned by Google, the open source code and license allows developers to change, make and distribute applications primarily through Google Play which can be accessed on Android enabled devices . As at 20<sup>th</sup> October 2014 Android had 1,373,342. October 2012 (appbrain.com), of which over one thousand fall under the category of 'baby apps' as can be seen on the screen shot in figure 6.7. A further search using 'toddler apps' (figure 6.8) as key words yielded similar results, and a third, using 'baby and toddler apps' (figure 6.9), likewise.

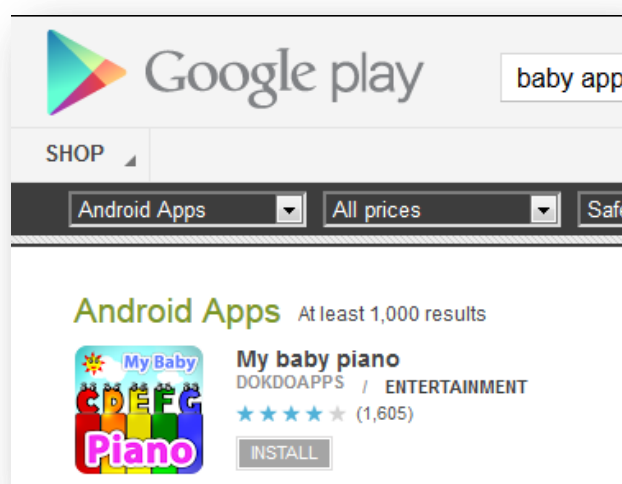


Figure 6.7 Screenshot of Android Baby Apps

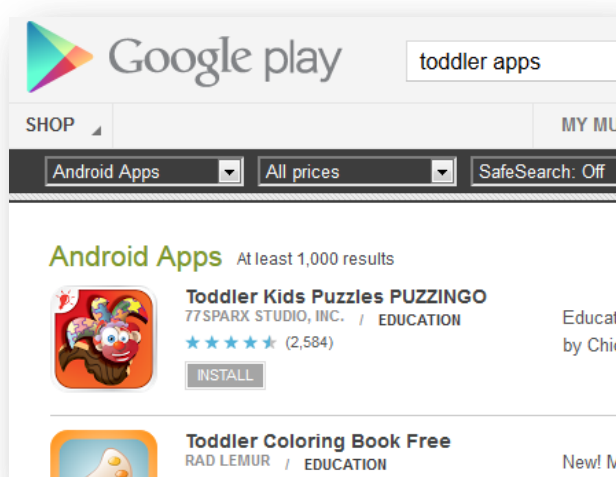


Figure 6.8 Toddler Apps

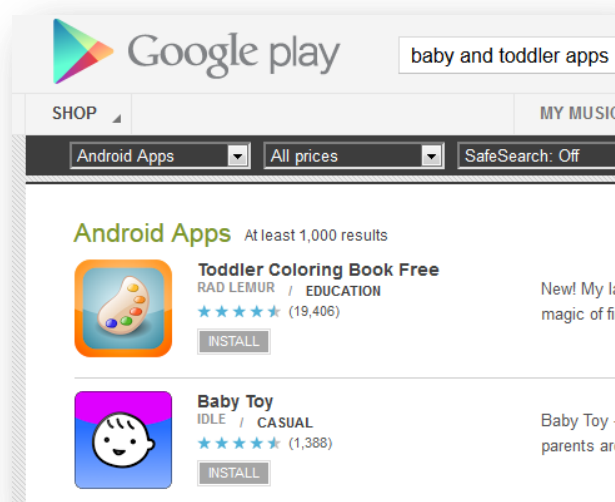


Figure 6.9 Baby and Toddler Apps

A number of the apps for babies and toddlers have locks to disable certain functions. For instance, Marco Nelissen's *Toddler Lock* app locks the child out of 'making calls or starting other apps' but also 'optionally enables airplane mode while application is active' (Nelissen 2013). Jenny has this capacity on her phone in an app, called *Baby Touch!* that was developed by Shigeo Matsu. Two versions of this app are available; one free, which does not have the lock function, and also allows pop up ads which can be tapped, and the other is AU\$1.80 to buy. *Baby Touch!* is designed specifically for very young children and in the most basic modes it features large brightly coloured shapes which can be moved about the



screen, and which make sounds when they are touched or moved. In this basic mode, there are single or multiple shape modes, as shown in figure 6.10.

There are several setting options which can be activated to change the types of sounds (laughter, comical and sci-fi options), the colour of the background (only black or white), the volume of the sound, in/activate vibration, as shown below, and in the bought version the home, volume, message and back buttons can be locked.



Figure 6.10 Screenshots of *Baby Touch* App Source: (Matsu)

Jenny initiated this program with the locks in place and gave it to Caleb. She had set the sound to 'laughter', something that Caleb appeared to enjoy very much for a short period of time; laughing along with the sound of the child or children's laughter that accompanied touching the shapes. Just as even very young children are 'sensitive to facial expressions' (Merleau-Ponty 1964 (b), 115) they are also sensitive to other sensory cues, such as crying, and laughing, as part of their primary intersubjectivity which is the precursor of intentional imitation.

Nonetheless, with the screen locked Caleb became bored with the game after about half an hour and started to squirm. Eager to continue our conversation Jenny popped Caleb on her knee, opened the photo album on her phone and helped him scroll through the pictures. He giggled loudly and squealed when he saw photos of himself, Jenny, their dog, Grandma, and all of the other faces he recognized. Some he appeared to find particularly funny and pushed Jenny's hand to position the phone so that I could see the picture too. When I smiled or

laughed, he squealed with excitement. The incorporation of capacities to store and share this type of user generated content reinforces the notion of the intimacy of mobile phones and their capacity to simulate liveness. In the case of *Skype*<sup>™</sup> or *Facetime*, the touch screen and app act in concert to simulate liveness and immediacy, enabling interaction to occur quickly and relatively seamlessly, and acting in some ways like a transitional object, wherein the object appears to have a life of itself, acts as a consolatory presence which eases transitional phenomena, and enters into the space of *écart* to flesh out the child's world.

Mobile phones are increasingly an aspect of very young children's socio-equipmental environments, quasi-toys complete with apps designed specifically for infants and toddlers. They are familiar and relevant objects which simulate aspects of liveness through user-generated content like photos and videos as we can see with Caleb's use of the phone. The capacities of the touch screen affords very young children with agency to interact with the technology as well as enabling screen sharing, which become part of their emerging habits of being-with screens, and configuring ever younger children as users of a range of interactive digital technologies, which will be discussed in the upcoming section.

### ***Scenario Two—Containers in containers: The Family Car Trip.***

A mother, father and three children, aged seven months, three and six years, embark on a car trip which is several hours in duration. The car is equipped with standard master and slave DVD player and screens in the back of the front seats to keep the children amused on the trip. The master and slave DVD player is characterized by one central player which displays content onto both of the monitors simultaneously. Consequently, before they embark on their journey, each of the children is encouraged to choose a favourite DVD to take along. As we have already discussed, for very young children, DVDs can act as first not-me possessions, over which they may exercise regulated ownership. Certainly, ownership may be exercised over the DVD case which then functions as a hard transitional object as well as a facilitating microenvironment or holding space, which holds content and potentially also holds children's attention and proximity to the screen.



Figure 6.11 Dorothy Rockin' Christmas (ABC Shop Website 2013)

The youngest child chooses '*Dorothy the Dinosaur – Rockin' Christmas*' in which, 'Dorothy' (of Wiggles fame) hosts a Christmas show with the other Wiggles characters including Captain Feathersword and Wags the Dog (2013).

Themed around Christmas, *Dorothy*, who is a graduate of the Royal Academy of Dinosaur Dancing, sings and dances her way through the DVD with the other characters including a special guest performance by Santa Clause, who sings Jingle Bells (2013). This DVD is one of Joshua's favourites and has been played repeatedly since Christmas, often to the annoyance of all the other members of the household, signalling his strong attachment to it and reinforcing its status as a transitional object. At home, Joshua carries the *Dorothy* DVD around with him, and can sit through the whole of this DVD in thrall. Since he's been able to crawl and pull himself up on the furniture, he can often be found 'face to face' with the TV screen bouncing up and down, hitting the screen with his open hand or the DVD case and 'singing' along with Dorothy and her friends.

Jamie chose a series of *Dora the Explorer*, an animated adventure series where Dora and her monkey friend, Boots, solve puzzles and overcome obstacles in each episode. The more complex content signals her level of development in comparison to Joshua.



Figure 6.12 *Dora's Ultimate Adventures* DVD Collection (Allen, 2003)

Like Joshua, Jamie has watched this series many times and it is her first choice when going to stay the overnight with her grandparents, or while being babysat while Mum and Dad are out. As such, Jamie uses *Dora* in much the same way as she might use a teddy bear or blanket: as a portable object which eases transition and offers a consolatory presence which fills the widening space of *écart*. Jamie enjoys the faux interactivity of *Dora the Explorer* and yells and points at the various objects that Dora needs to find along her journeys. She has also picked up some Spanish words and enjoys showing them off to anyone within earshot.



Figure 6.13 Ben 10 Alien Force (Lambert, 2008)

Jacob chose *Ben 10 Alien Force* as his DVD. Being an avid fan, he also insists on wearing his Ben 10 t-shirt and his toy omnitrix—the watch-like device which the character Ben Tennyson uses to (often unreliably) change forms (2003-2005). The spin-off products of a t-shirt and toy omnitrix also signal the transmediatic *Ben 10* phenomenon. Jacob also brought the Nintendo DS™ and some games that he got for Christmas along for the trip. The *Ben 10 Alien Force*/ DS™ ensemble offers a compelling example of multiple containment, which resonates with the multiple holding of a television set, and its content. The game cartridge is contained primarily in a case, before being inserted into the DS™ console. The screen contains Ben Tennyson and his allies and nemeses, along with a microworld that is a mixture of earthly and unearthly locations. Ben's omnitrix contains a plethora of characters which can be deployed at will. Moreover the DS device is personal and interactive, which has the potential to hold Jacob's attention. This holding is further compounded by Joshua being in a seatbelt in a car, layering the containment even more. As such, the DS™, and its contents act in concert, and

individually, as containment technologies and facilitating microenvironments. The portability and interactivity of the DS™, the *Dorothy* and *Dora* DVDs may also be said to give the appearance of liveness, as well affording very young children with transient rights of conditional ownership. Moreover, through their capacity to ease the boredom of waiting (Bissell 2007) and the tedium of transition, they flesh out the space of non-coincidence between children and their carers in much the same way as other transitional objects.

As touched on briefly in the previous chapter, televisual spaces are often contested spaces, particularly in instances where one mediating technology needs to be shared amongst several people. Cathy, the mother, considered it prudent that *Dorothy* be played first since Joshua would fall asleep early into the trip. After a short distance Joshua began to resist his containment and express his boredom. With his car seat in the middle of the back seat, he was between two screens, and although the seat by virtue of its height and positioning afforded him a more expansive view of the road in front and the scenery surrounding the car, it restricted his view of the screens. He became unsettled and started to complain and squirm within the constraints of the seat, reaching out in an attempt to grab the DS™ from Jacob. The postural and gestural constraints of the car seat along with his own immature corporeality frustrated Joshua's attempts to reach the DS™. Jamie became annoyed with Joshua's complaining and began to protest to her parents that she could not hear *Dorothy*. Jacob, likewise, complained to Cathy about the noise and the incessant grabbing, which was interrupting his gameplay. Cathy, who was a passenger, suggested to Jacob that he should 'just give it to him', a suggestion which was met with 'but it's mine. I got it for Christmas. He doesn't even know how to use it properly!' To use the DS™ in the way it was intended to be used requires particular postural (generally hunched forward), orientational (forward facing) and gestural habits (button pushing in appropriate sequence) which Joshua's maturing embodiment had not yet mastered: he was still learning.

Jacob's assertion reinforces the notion of the transitional object where rights of ownership are exercised over objects which act as intermediaries during times of change and waiting (Winnicott 1957, Bissell 2007). Yet, the statement is also a

significant illustration of the difference between Norman's (1990) and Gibson's (1982) notions of affordances. In Norman's terms, the affordances (or intended use) of the DS™ is apparent to Jacob but not to Joshua, since Joshua had not yet learnt the body habits suitable for being-with-the-DS™, yet in Gibson's terms the affordances are whatever the child is able to do with the object. Jacob's more mature understanding of 'correct' use combined with the disputed rights to control what he considered 'his' led to the complaint. Despite Jacob's complaint, we should remain mindful that while the DS™ affords him certain uses in line with the designers' intention, it does nevertheless afford Joshua particular uses in relation to his developing corporeality. For Joshua, the DS™ affords banging on things, chewing, throwing, hitting other children, rubbing on his or other children's head and hitting the controls. It's throw-ability also potentially affords hitting the driver in the head or at least creating a distraction which reinforces the tenuousness of the safety of even multiple containment. None of the '-abilities' are considered suitable by Jacob. As such, Jacob was able to exercise the rights of ownership typical of transitional objects, over the DS™ even though he was not able to do so in relation to the DVD player.

Cathy tried to reason with Joshua that the DS™ belonged to Jacob and that he should continue to watch 'his movie'. She understood that if even if Jacob parted with the DS™, then he would not be happy to watch *Dora* or *Dorothy* and would insist on watching his own DVD as a trade-off. If that happened, then Jamie would be unhappy as she did not like *Ben 10* at all. Cathy attempted to satisfy all three children by passing her tablet to Joshua. Before handing him the iPad, she initiated the 'Music Studio' app. The screen is configured as a keyboard and it can be set to produce the sounds of various instruments and rhythms. Even with very young children's corporeality being undifferentiated, they can hit the screen with their open hand or a fist to produce something resembling music. As their corporeal schema develops and they learn the habits of play, they can use their fingertips to produce more readily discernible music. Joshua played happily for a little while. Before too long, however, Jacob complained that Joshua did not know what he was doing, that he was not using it properly. This again signals that the affordances that the iPad-app-Joshua ensemble furnished were not considered

appropriate by the corporeally more mature Jacob who had learned the habits of playing most apps in accord with their intended uses. Jamie started to complain too, that *Dora* was boring and she wanted to use the Finger Paint app on the iPad to draw some pictures. Then, Joshua decided to chew on the corner of the tablet which brought about another raft of disapproval from the older children and Cathy. Consequently Cathy took the iPad from him, admonishing him for chewing it and telling him that he could not do that—it was not a toy, despite the fact that he had been *playing* with it and had *played* with it on many occasions before. Cathy suggested that they play together on the iPad if that was what they all wanted to do, but this nonetheless brought about issues of hierarchical use: who should control it, who should hold it, who could choose the app and who could see it if someone else was holding it. At this point, Cathy decided that there was nothing to do but to let the children sort it out amongst themselves and console herself until the journey ended by playing classical music on the car stereo and trying to ignore them.

Since at least 2004, DVD screens have become standard features in Australian luxury cars (Silkstone and Milovanivic 2004) and anecdotally many car enthusiasts have installed after-market DVD screens in both the front and back of their cars. *PC World* suggests that the reason people like to have a DVD player in the car is because:

in-car kiddie wars become a thing of the past—especially if you've got the twin screen player so everyone in the back seat gets a good view. The kids are happy and you can concentrate on finishing that long holiday drive and arriving with all family members intact. (2008, 1)

The implications of this quote are significant in terms of facilitating microenvironments, holding spaces and containment technologies, suggesting that not only will ‘in-car kiddie wars’ be eliminated, but also that the family will arrive safely as a consequence, echoing the notion of the role of the facilitating environment, or holding space: to provide a ‘safe space’ to protect children from harm (Winnicott 1972). As we can see, however, holding is always also precarious, as safety relies on everything going to plan, yet as we have seen,

disputes over ownership, space, orientation, and use may render the family's containment risky, potentially causing an accident.

In the scenario above, we can identify multiple containment; not only of the children, but also of the parents. In the first instance, all of the members of the family are contained within the vehicle. The two youngest children are secured in a baby car seat and a booster seat respectively, and each member of the family is restrained, by their seatbelts. The driver's attention is captivated, by the view of the road, rear view mirrors and windows of the vehicle, through which he or she is able to see to navigate, scan for, and (hopefully) avoid hazards, as well as the instruments on the dash from which he or she can 'read off' the speed, the time, the fuel supply, the temperature of the engine and so on in simultaneous embodied and hermeneutic relations. The passengers are variously intertwined with the DVD player, the iPad and the DS™ and potentially a satellite navigation device, or phone, magazine or book.

Each layer of containment affords specific enablements, while constraining others. For example, the car enables vehicular transport. For the passengers, it enables flexible orientations which are also constrained by the mediation of seatbelts, seats and, for the driver, a need to attend. The seat belts delimit the orientational possibilities otherwise afforded by the car by sustaining the upper body in a forward facing and upright position. While gestural affordances are flexible in most of the positions in the car, the baby car seat slightly constrains Joshua's gestures due to the wrap-aroundness that is the car seat. In addition to these readily recognizable containers, the DVD has the potential to occupy the children's attention partially in relation to the content, but also partially, in the context of multiple containments which hold their bodies in particular postures for watching. The DS™ too may attract and hold Jacob's attention by way of the screen, the interactivity and the app, and as we have seen, it may also attract the attention of his younger brother. The portability and interactivity of the DS™ renders it a more flexible holding than the seatbelt as it allows for the potential of adopting other postures, while constraining orientation and gestures. Multiple containment, such as that described above, illuminates the interdependence of physical and media holding. Each is implicated in the etymology of the word



‘hold’ which comes from the old English ‘to contain, grasp; retain; foster, cherish’ and the Gothic ‘to keep, tend, watch over’ (Dictionary.com). This resonates with the previous ascription of both media and physical holding in facilitating microenvironments.

As well as creating multiple mobile micro media spaces, this example allows us to consider the capacity of mediating container technologies (Sofia 2000) to stand in for parents, holding children safely and protecting them from harm, at least in theory. As we have seen, while screens have a potential to attract and hold attention, their capacity to do so is context and content dependent.

### ***Scenario Three—Gemma, the iPad and the Jigsaw Puzzle***

When visiting a friend recently I watched her eleven month old playing with an iPad while we were talking. Gemma, the toddler, had been ‘using’ Mum’s mobile phone and iPad since she was about six months old so she knew how to access her favourite apps without help. Furthermore, her corporeal maturity had developed sufficiently to enable her to point and press icons with her index finger to initiate various apps. She was playing with a Jigsaw app, which I have since downloaded onto my own iPad to experiment with.



Figure 6.14 iPad Jigsaw App positive reinforcement

Like a physical, actual jigsaw, irregularly shaped virtual pieces are to be placed in the appropriate places to complete a picture. There is a picture on the screen to guide the placement of pieces, making it accessible to quite young children. It appeared that Gemma did not really know where the pieces fit but she touched them and slid them across the screen with her finger, dragging them around until they ‘dropped’ into place. As each piece fit into the puzzle it made a ‘clack’ sound. She repeated these actions and received the same reinforcing ‘clack’ sound until all of the puzzle pieces were in the appropriate place and a voice announced ‘horse’ and showed the word ‘Fantastic’ as can be seen in figure 6.14.

Watching Gemma play with the jigsaw app reminded me of an occasion when Kane was playing with a wooden jigsaw puzzle, and illustrated the difference between the experience of a traditional jigsaw puzzle and on a touchscreen puzzle. Gemma, a couple of months older than Kane, was able to readily complete one puzzle after another. Kane, on the other hand, had only one puzzle and did not complete it at all. The built in approximation afforded by the touch screen negates the need for precise fine motor function that is required with the wooden version. This facilitates an enhanced experience of control and achievement which is not contingent upon fine motor skills which come with maturing corporeality, situating Gemma as an expert user and informing her understanding of herself as a potent agent who may choose of a range of activities, and master them despite still mastering her own bodily movements.

The ‘feel’ of the iPad screen and consequently the pieces, was consistent across all of the puzzles, and indeed all of the apps. Furthermore, an iPad affords a range of activities without the mediating instruments of pens or paintbrushes, so whether Gemma was doing a jigsaw puzzle, painting, colouring in, finding objects, tracing letters and numbers, or playing music, the texture of the experience was much the same: smooth, hard, relatively cool and contained in a rectangular frame. The wooden puzzle that Kane used was likewise contained within a rectangular frame. Within the frame, the shapes of the pieces were cut out which acts as a guide for the correct placement of pieces. The pieces had a peg on top allowing them to be picked up with a thumb and forefinger, further enabling placement within the base of the puzzle. Unlike the iPad, the physical constraints of manoeuvring wooden pieces into indents, requires a corporeal maturity which children do not attain until quite late in their toddlerhood. Hence a wooden jigsaw puzzle and a touchscreen puzzle yield fundamentally different ontological experiences at the level of materiality and manoeuvrability. With the wooden jigsaw puzzle, the shape of each individual piece can be explored with hands and mouth, enabling infants and toddlers to explore the difference between them, as can in figure 6.15, which is something that the iPad cannot afford.



Figure 6.15 Wooden Puzzle

Each piece of a wooden jigsaw can be thrown, banged against things, chewed, scraped, lost and damaged which the virtual pieces of the iPad cannot. In addition to the haptic and visual elements, including a picture of what the finished puzzle should look like on the iPad, the aural experience of doing a wooden and a virtual jigsaw puzzle are different. The iPad app makes a ‘clack’ sound which alerts the player when they have successfully placed a piece in the right spot, as well as receiving verbal verification of what the finished product represented. The wooden puzzle remains relatively silent and gives no affirmation of a job well done. Hence, while the iPad affords amplified control, in terms of discriminate action, it supplants a range of haptic, auditory and affective experiences that a wooden puzzle affords. The ‘abilities’ afforded by both touch screen enabled jigsaws and wooden jigsaws are a complex combination of haptic, auditory and visual magnifications and reductions.

Touch screens generally, and tablets in particular, afford even very young children with increased possibilities of control and manoeuvrability, situating them increasingly as potent users of the technologies. Although sophisticated use of a tablet or other touch screen technology requires a fairly mature control over gestures, the built in approximation inherent in the screens allows even very young children to produce a response. This became even more evident recently when my five month old grandson (and his parents) came to stay with me. Although he had not been given a tablet to play with previously, I too started the *Music Studio* app and handed over the iPad. At first my grandson reached for the edges, and attempted to chew on them, but after I showed him how it could make noise, he hit it with the flat of his hand and giggled, something he repeated several times, then he rested his palm on the screen and scratched it, producing different effects. I had, however, not engaged aeroplane mode (a facility which blocks capacity to connect to the internet) so, not surprisingly, I had to grab it back from him hastily as he connected to the ‘in app’ purchasing option.

The very mobility of mobile media technologies has transformed practically all spaces into tele-spaces where we may increasingly interact with distant others, potentially at the expense of those who are proximally close. Yet increased mobility is not a characteristic that is unique to phones. Hand held video games, for example, date back as far as the late seventies with Mattel’s LED-based Handheld’s release in 1977-78 (Melanson 2006). This enabled children to take their gaming spaces with them, virtually wherever they went, as was elaborated in the earlier scenario. The trend became such that many schools actively banned such games. Particularly on long trips in the car however, such toys were

considered by many parents as somewhat of a boon. These devices made it possible for children to be occupied for protracted periods of time, alleviating the incessant ‘are we there yet’ chant or squabbles that inevitably ensue on long trips, or in times of boredom generally.

I would suggest that the most important implication which can be taken from this is that televisual media create facilitating microenvironments. That is, they create a safe place, which will hold children and prevent any harm coming to them, although that safety is precarious. Televisual media, moreover, fill the space of non-coincidence between caregiver and child, and by doing so act in that space as a transitional object, which eases infants’ dis-integration from their primary caregivers, while simultaneously integrating them with their wider cultural milieu. That screens can seem to have a life of their own, adds weight to the comforting, and exploratory potential of this particular type of media to act in some of the same ways as transitional objects. Infants and toddlers also form carnate, affective attachments to these media which help them cope with the increasing dis-integration from one or more significant human others while enabling an integration with other significant human and non-human others.

That specific technologies afford some uses and not others is particularly noticeable in relation to small children, whose developing corporeality means there is a world of difference between using a mouse, a keyboard or a touch screen as each offer significantly altered experiences and capacities for action. As such, touch screens offer infants and toddlers opportunities for interaction which their developing corporeality may preclude in relation to keyboards or a mouse and while AVG suggest that many children can ‘point and click’ by three years of age, touch screens allow the channeling of body habits towards more sophisticated use as their motor skills develop as can be seen in the case of Caleb’s use of the mobile phone and Gemma’s tablet jigsaw game. As we have also seen, however, what a technology affords very young children may not coincide with the intended use, as is evident in Joshua and Jacob’s dispute over the use of a tablet.

The foregoing scenarios illustrate how interactive screen-based digital technologies, as part of very young children’s socio-equipmental environments, enter into their experiencing in a number of ways. The particular characteristics of touch screens configure ever younger children as users of media, as is evident by the volume of apps being designed specifically for infants and toddlers. The family car trip and the mobile phone scenario, additionally offer us opportunities to understand that interactive screen-based digital media also operate as transitional objects and facilitating

microenvironments, fulfilling the function of a consolatory presence and a holding space enabled by the technologies.

## ***Conclusion***

Infants and toddlers are increasingly growing up in environments where user-generated content such as home movies and photo slide shows, as well as television on demand, internet TV and *YouTube* are common televisual experiences. With the capacity to customize content, record, play, fast forward, rewind, pause and replace (record over) the television shows and movies problematizes our traditional understanding of televisual media as solely, or even predominantly, broadcast media, meaning that children have access to user generated content which is both familiar and relevant, pre-empting future being-with-screens.

Evidence of using tablets and mobile phones in particular, as not necessarily babysitters, but certainly transitional objects standing in for parental care, can be seen readily and in a number of different situations. What Rideout et.al., and AVG's figures *do* indicate with a degree of certainty, however, is that media, including new media, are becoming an increasingly pervasive facet in the lives on infants and toddlers, fleshing out, texturing and digitising the gradually widening space of non-coincidence between carers and children, and facilitating very young children's growing understanding of the world and themselves as discrete, yet 'tethered' entities within it.

With the proliferation and potential holding power of new media amplifying and magnifying fragmented colocation and co-presence, mediating how we 'attend' in the early twenty first century. Infant and toddlers experiences in the world are thus mediated, informing very young children habits of being-with-screens which fill the gradually spreading space of *écart*, how they can come to grips with the world, and ultimately how they understand their place with-in it. Acting as quasi facilitating microenvironments and transitional objects, or consolatory objects which ease the transition from total dependence to relative independence, new media act in many of the same ways as toys, dummies and television, but with

particularities which also make them distinct. It may be said therefore, that new media are situated at one end of a continuum which encompasses all mediating technologies from clothing and feeding technologies to mobile phones and tablets and potentially beyond as children gradually learn habits of being-with interactive digital media.

This chapter has acknowledged that while the primary televisual medium with which very young children are engaged in Australia is still television, interactive digital technologies, particularly those with touch screens, are an increasingly ubiquitous and important part of very young children's socio-equipmental environments. Prior to discussing particular instances in which very young children engaged with touch screen technologies, I explored the implications of virtual space, televisual technologies and new media to provide the broader contexts of use. I then traced the evolution of the telephone from its fixed line beginnings to its status as a mobile media device. In doing so, I suggested that the physical characteristics of telephonic media have reconfigured adult experiences of presence, communication and space.

Very young children do not initially experience 'new media's' capacity as information and communication technologies in the same way as adults, but rather as merely an aspect of the world as it always already has been for them. That is, very young children experience new media as just another part of their socio-equipmental environment; sometimes a plaything, sometimes the focus of attention, sometimes a box that just sits, sometimes a transitional object and sometimes as holding, and sometimes all of these simultaneously.

## *Conclusion*

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*How You Connect 'em  
will Affect 'em*





## *How You Connect 'em will Affect 'em*

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If we accept that changes in communications are embedded in larger shifts around technology, social structure and culture then there can be little doubt that there are implications for young children (Carrington 2005, 13).

Infants and toddlers growing up in Western societies in the early twenty first century, more than ever live in technological cocoons. Media products and texts, in the since the late twentieth century which are designed specifically for very young children have burgeoned. This has led some commentators to suggest that very young children's immersion in a world of interactive and electronic media is a potentially revolutionary phenomenon (Rideout, Vandewater, and Wartella 2003). Yet, while there can scarcely be any doubt that media have become an important and pervasive part of the lives of very young children and families generally, there remains little research into how this plays out in the lives of infants and toddlers. Moreover, much of the small amount of research which seeks to understand the potential impact media may have on infants' and toddlers' development either takes conclusions from research done on older children and applies them to infants and toddlers, or uses the same methodological approaches used to investigate older children and attempts to explain very young children's relation to media relations in the same terms. Such research tends to focus on various aspects of the content of media.

Reliance on textual or content based modes of analysis, however, makes it too easy to overlook any impact that media may have in the lives of infants and toddlers who are not yet fully linguistically or cognitively developed to understand media messages in the same way as adults or even older children do. By relying on a model that centralizes embodiment as the primary way of knowing the world, this thesis has offered us a way out of relying on verbal language or cognition, affording us with an approach which rests on the primacy of infants' and toddlers' embodied being-in-the-world (Merleau-Ponty 1964 (b)). While cognitive and linguistic meaning are important, they nonetheless remain *a posteriori* ways of knowing the world and making meaning; meaning emerges in the first instance as a matter of perceptual access. While we have long

since been aware that media messages are not fixed, and multiple meanings are always available, Merleau-Ponty's phenomenology allows us to understand how meaning making is intricately intertwined with embodied action and experience in a complex set of relations that are in a constant state of re-evaluation.

Furthermore, by exploring the chiasm and the spread of *écart*, inclination, attitude and orientation take on new significant and corporeal dimensions which facilitate our understanding of the ontological and perceptual significance of media in the lives of very young children. Hence, the potential impact that media may have on infants' and toddlers' development cannot be understood solely in terms of media content, but must consider the ontological and perceptual significance of a range of mediating technologies in relation to infants and toddlers corporeality.

As well as focusing primarily on media content, much of the research in relation to children and the media concentrates its efforts on particular 'high tech' media technologies. I have argued throughout this thesis, however, that to gain a more comprehensive understanding of the intersection between media and very young children we need to consider that television, computers and their hybrid forms of 'high' technology, despite their particularities, exist along a continuum of mediatic material objects which in-form children's understandings of themselves in relation to the world. Therefore, I have offered analyses of a range of technologies from clothing and incubators through toys, televisual and interactive digital technologies to suggest that even the most seemingly innocuous and basic technologies mediate very young children's perception and ontology in particular ways. Therefore, I have argued that all technologies are mediating technologies, or material objects which enter into human praxis, as part of the flesh of the world which exist in a primary relationship with infants, toddlers and adults alike. Our primary embodied relation with technologies in-forms our inhabitation of the world, mediating our perception and ontology. This thesis has consequently taken account of the specificities of mediating technologies and very young children's embodied being-in-the-world to argue that we need to understand very young children's relations with the object world before we can hope to understand media effects.

By focusing on children from birth to three years of age, and insisting on the continuity of experience, this thesis has maintained that children and adults alike exist in a primary and primal relationship with technologies which mediate our existence in, and experiences of, the world in medium, historically, culturally and socio-economically specific ways. I have also reasoned that due to their developing corporeality and emplacement within media saturated environments, which act in concert with adult conceptions of infancy and toddlerhood, very young children's experiences and understandings are mediated in ways that are different from adults. However, given that children learn patterns of interaction with-in the world in the first few years of life, which become part of their habitual schema for being, these patterns of inter/action in-form subsequent knowledge and action within the world, and persist in varying degrees into adulthood. Hence, the importance of early childhood experiences in relation to their object world, to the adult life that follows it, cannot be overstated (Merleau-Ponty 1964 b).

Despite arguing that media affect infants and toddlers at the level of their embodied being, I have argued that media effects are neither universal nor straightforward, causing children to behave in one way or another. Rather, I hold that the physical characteristics of specific mediating technologies incline us toward human and non-human others in particular ways. Moreover, we cannot consider media as something which exists apart from us as that which corrupts or illuminates, rather I recognize that through our repeated use, mediating technologies become a part of our corporeality: a part of our capacity to act and be acted upon within the world. Through repetitive and ongoing engagement with mediating technologies, therefore, very young children learn habits of being in the world, with technologies. As such, I have sought to arrive at an understanding of infants and toddlers from the facticity of their embodied being-in-the world, in relation to mediating technologies, as an integral part of that world.

I have argued that very young children's developing control over their bodily movements, their bodily motility and emplacement within the world, as well as their limited experience of and in the world (compared to that of older people) render them a special case for study. This thesis may be seen as a departure from

much of the literature surrounding children and the media in several crucial respects. Firstly, by focusing solely on infants and toddlers, secondly by considering a range of material objects which are generally not taken to fall within the gamut of media, and thirdly by drawing on the complementary theoretical perspectives of a phenomenology of embodiment, post-phenomenology, psychoanalysis, the study of material culture and the concept of affordance. Such an approach has enabled us to understand that infants and toddlers, are in the first instance, embodied beings, who exist in a world which matters to them: touches, concerns and literally moves them, and that their being is in a constant state of transformation, and that the ways in which material objects intertwine with very young children's experiences in and of the world, mediates their understandings of themselves, the world and the human and non-human others who simultaneously inhabit their socio-equipmental environments.

### ***Where We Have Been***

In the introduction to this thesis, I discussed the preponderance of research in the general field of children and the media to suggest that despite volumes having been written there remains little research into how the media may impact on infants and toddlers. As outlined above too, I suggested that the term 'media' as we commonly understand it, is inadequate to the task of gaining an understanding of the ontological and perceptual significance of mediums in the lives of infants and toddlers. Consequently, I proposed an alternative definition of media which takes its impetus from Ihde's post-phenomenology of technology, which suggests that technologies must consist of a material element, or object, which also enters into human praxes as a human-technology-world relation, and which simultaneously recognizes that all technologies mediate our experiences of the world (Ihde 1990). This definition allowed us to consider how a range of mediating technologies, of which media are a part, from incubators to tablets, mediate infants' and toddlers' understandings and experiences of themselves and the world.

Initially I reviewed the key themes that have arisen in the field of children and the media to highlight that while there have been some useful insights, the emphasis on older children, ‘high’ technologies and/or content based analyses as the primary modes of analysis has not allowed for an in depth understanding of the ontological and perceptual significance of media in the lives of infants and toddlers, which accounts for a paucity of research in this area.

Chapter One expanded on the theoretical model forwarded in the introduction, initially reiterating the fundamental tenet on which this thesis rests: the centrality of embodiment as a precondition of any knowledge of the world. Although this position asserts that we are all embodied beings, very young children’s bodies present a special case. The affordances that any technology furnishes very young children are different to those afforded to older children and adults, who through enculturation have learned ways of being with technologies which are yet immature in infants and toddlers. Embodiment is overlain, through the process of maturation, with cultural expectations and regulations which inform habits of being generally, and ways of being with technologies specifically. Hence, adult conceptions of infancy and toddlerhood and consequently what we believe is culturally appropriate for them to be, do, have and know are implicated in the types of technologies we use to ‘bring them up’, and these material elements of the world mediate how children may experience the world. As such, I argued that all knowledge of the world is predicated on having or being a body which exists in fact in the world, but also that infants’ and toddlers’ embodiment is not neutral, but rather is entangled in multifarious relationships between material effects and the socio-cultural conditions of existence.

Moreover, I argued that as embodied beings in the world, we are all what we do, and those things that we interact with on a regular basis become incorporated into our habitual ways of being and acting within the world, establishing a foundation from which all other knowledge, including linguistic and cognitive knowledge emerges. Hence, I again revisited the debates which have emanated from the broad field of children and the media to critique the capacity of content, linguistic

or cognitive models to adequately take account of the significance of media and mediating technologies in the lives of infants and toddlers.

In expanding on Merleau-Ponty's phenomenology of embodiment, I argued that the world and its elements are not merely a neutral tableau of sense data but rather that they matter, concern, touch or move very young children—and adults—and that the only way infants and toddlers can literally 'come to grips' with the world is in relation to those things in the world which concern them. Furthermore, I argued that while infancy and toddlerhood is a time of prodigious capacity to take in the world, that this should not be considered as a one-way process but rather one in which very young children and the world each become a part of the other. In making this argument I relied on Merleau-Ponty's reversibility thesis, which emphasises that infants and toddlers both act on and in, but are also acted upon, by the world.

Despite the value of Merleau-Ponty's phenomenology to our understanding of knowledge which predates verbal language and cognition in relation to infants' and toddlers' primary relations with technologies, a 'pure' phenomenology would not have allowed us to take account of the ways in which infants' and toddlers' bodies may be acted out and acted upon in particular socio-cultural contexts. On its own, therefore, Merleau-Ponty's phenomenology would not have been sufficient to take account of the ways in which infants' and toddlers' bodies are not only existential bodies but are also socio-cultural bodies. Hence Ihde's post-phenomenological understanding of 'lifeworlds', the mediating capacity of all technologies as well as his development of Merleau-Ponty's thesis allowed us to understand how very young children may come to experience the world through and in relation to technologies. Hence, Ihde's insights have allowed us to not only take account of the materiality of culture and the ways in which infants' and toddlers' bodies are acted out and enacted in relation to the technological ensembles which constitute and are constituted by their particular lifeworlds, but also has enabled us to revisit McLuhan's dictum that the medium is the message. In doing so, it reinforced the notion that content is a secondary medium, and that the mediating technology, in and of itself, conveys meaning. Furthermore, it has

facilitating our understanding of the specificities of the ways in which very young children co-opt mediating technologies into their experiencing.

The concept of affordances, as set out by Gibson, has further allowed us to recognise that the opportunities that particular technologies afford are contingent with our developing corporeality and permitted us to take account of the specificity of very young children's embodiment in relation to the object world. Norman's concept of affordances was also introduced to further our understanding of intentional design which gives us insight into the types of things that are made specifically for very young children.

Winnicott's psychoanalytic theory was ultimately introduced and outlined to reinforce Merleau-Ponty's assertion of the continuity of being and how early childhood experiences impact on the adult life that follows it. Moreover, in his account, the maturation process from total dependence towards relative independence is facilitated initially by the maternal provision of a facilitating/holding space. This gradually gives way to the introduction of transitional objects which offer a consolatory presence to ease the anxiety of disincorporation from the maternal body, enabling an incorporation of the things of the wider world. Hence the importance of objects in informing feelings of ontological security as well as assisting very young children in coming to understand themselves as discrete entities in the world can be understood through a synthesis of Merleau-Ponty's phenomenology and Winnicott's psychoanalysis.

Throughout the subsequent chapters, which dealt with particular types of material objects that are commonly used in childrearing in the early twenty first century in Western cultures, additional concepts from the various theories were introduced and expanded in relation to facilitating microenvironments, primary objects, toys, television and 'new media'. Ultimately, I suggest that such a phenomenological approach has made it possible to deem that media exist along a continuum of mediating technologies, which overlap with very young children's developing corporeality and understandings of themselves in the world.

Chapter Two, *Being-In-Facilitating-Microenvironments* examined the spaces that infants and toddlers inhabit, to argue that microenvironments form, inform and position us in terms of our embodiment in relation to our socio-equipmental environment, mediating very young children's experiences of the world and their position within it (Sobchack 2004, 136). By focusing on microenvironments, the chapter argued that the world as it may be for the infants and toddlers in contemporary Western cultures is constituted through, and constitutes, a series of facilitating environments, or small environments which facilitate certain types of actions and experiences. Focusing on the spaces which infants and toddlers inhabit, and how these inform very young children's perception and lived existence, I drew again on the crucial concept of 'being-in-the-world', as proposed by Merleau-Ponty (1962) which sets up a primary relation between embodiment and space. I reasoned that 'the world' is analogous to Winnicott's notion of the facilitating environment (Winnicott 1960) and Sofia's container technologies (Sofia 2000). I therefore maintained that the ensemble of specific yet interconnected technologically enabled environments that hold very young children, in concert with the child's developing corporeality, shape the way the world may be for them: delimiting their postural, gestural and orientational capacities and their ability to traverse space, and imposing points of view within their particular socio-equipmental environments. While it may be argued that space *per se* is not a technology in that it does not comprise a material element, the boundaries of spaces are often technologically enabled as in the case of incubators, playpens and highchairs to name just a few, and hence may be considered as consisting of a material element which enters into human praxis.

Before moving on to an analysis of particular spaces that infants and toddlers inhabit, I discussed the concept of space as proposed by Henri Lefebvre (Lefebvre 1991). This was done to establish a synergy between his argument and Merleau-Ponty's concept of being-in-the-world and Winnicott's facilitating microenvironment, all of which acknowledge that space is not a neutral, nor absolute 'concept' but rather that space is primarily lived, experienced and shaped through that living and experiencing (Lefebvre 1991, 12). For very young



children space thus becomes imbued with affect and meaning as nurturing, security and comfort: holding spaces in Winnicott's terms. Hence infants' and toddlers' experiences are simultaneously constrained and enabled by their developing corporeality and emplacement within holding spaces and their perspectives and ontology develop in relation to the spaces provided for them. I also argued that since space produces and is produced by human activity, that they are assigned particular uses, with each affording specific types of inhabitation (Thrift 2006, 1).

The facilitating environment in Winnicott's terms is a holding space with one primary function, to reduce adverse psychological and physiological encroachments into infants' sense of security, allowing them to experience a reliability of parental care which is crucial to very young children's transition from total dependence through relative independence and towards independence. In this chapter I used the examples of incubators, baby carriers, cots, playpens, highchairs, walkers, and the mobile microenvironments of baby capsules, car seats, and prams and strollers to argue that each of these facilitating/holding spaces, or container technologies mediate children's experiences of the world, affecting them at the level of their embodiment, but also that the affordance offered by each is fluid and dynamic in response to children's developing corporeality.

Chapter Three discussed the importance of the development of object relations through the lens of primary objects, or those things which infants encounter early in their lives, in mediating the transition from total dependence to relative independence, in-forming their understandings of themselves as discrete beings with-in-the world: in the world in relation to human and non-human others. I elaborated on Merleau-Ponty's concept of *écart* and its analogy to Winnicott's concept of potential space to suggest that meaning is primarily made in the gradually widening space between primary caregiver and baby, which is filled with the stuff or flesh of the world and gradually comes to take in the whole of the world as it may be for infants and toddlers.

Merleau-Ponty's concepts of chiasmic intertwining and reversibility were elaborated upon to reinforce our understanding that the world and its elements both touch or concern, and are touched and concerned by us, in a mutual inclination, configuring both children's and mediating technologies' activity in the world. This chiasmic intertwining, with repetition enables infants and toddlers, as well as adults, and the elements of the world to each become a part of the other, not annihilating the other but rather each informing the other. Hence while Winnicott argues that the move from dependence towards independence is a process of disintegration, I contended that it is always a process of simultaneous integration and disintegration.

Using the specific example of feeding technologies I suggested that the experience of feeding is a rich experience for both carer and baby, but that the experience is qualitatively different depending on the particular technologies used in the process. While functionally the result is the same whether, for instance babies are breast or bottle fed, the texture of the experience is different for both parties involved hence the medium specificity of feeding technologies mediate infants experiences of the world in particular ways, not the least of which is in the rhythms of everyday life. As such, I reasoned that the ways in which very young children's time and space are organized, and the sensual qualities of flesh of the technics of feeding kinaesthese to constitute the texture of the situated lifeworlds which infants inhabit, establishing habits of being.

Winnicott's concept of transitional objects was then dealt with at length to suggest that the textures of the flesh of the world which rush in to fill the gradual spreading of *écart* in-form very young children's understandings of how the world feels, shaping babies growing understandings of themselves and the world through their affective and relational involvement with the elements of their world, and their capacity to act and interact within it (Lally 2002, 24).

Transitional objects stand in for the breast and in some ways have similar characteristics. Hence as Winnicott tells us, babies' facility for an affective understanding of their world is demonstrated in the use of transitional objects:

where there is all the difference in the world for the baby between silk, nylon, wool, cotton, linen, a starched apron, rubber, and a wet napkin. (Winnicott 1988, 30)

That is, the way that children feel about the world in emotional terms is informed by the way the world feels to them in physical terms, cementing the link between embodiment and emotion. Staying with the concept of transitional objects, I moved on to discuss dummies and their capacity to not only function as transitional objects, but also to mediate the experiences that infants and toddlers may have in the world by occluding buccal exploration. In this section I also discussed the particularities of baby sleeping bags and grow suits in relation to babies' developing corporeality, both constraining and enabling babies' capacity to act in the world in ways that are meaningful to them.

Through habituation, environments and objects become part of our experiencing, as embodied relations which facilitate our feelings of security, or being at home in relation to our materiality. As children grow and move towards independence, ontological security is realized by the child's gradual introduction to the diversity of things and experiences in all their complexity and children become increasingly able to explore and experiment with the world about them from the safe haven of holding spaces. As children encounter difference, whether that is new people, technologies, objects or places, these encounters inform the child's understanding of him- or herself in relation to new experiences, places and things, which not only transform the child but also transform the rhythms and spaces of daily life.

In Chapter Four, *Toys Are Us: Playing is Being* I embarked on an exploration of mediating technologies designed specifically for entertainment, signaling a shift to media as it is more traditionally conceived. Recognizing that those things we use on a regular basis become part of what we essentially are, thus adds a new dimension to our previously held notions of the relationship between children and the media. The chapter also explored the concept of texture which was introduced in the previous chapter to suggest an increased plasticization, mass production and transmediation of infants' and toddlers' lifeworlds. In that chapter too, I again drew upon the theoretical concepts of flesh and the chiasm to suggest that toys

‘flesh out’ children’s lifeworlds, filling the space of *écart* with the textured flesh of the world as it steadily widens between carer and child.

Chapter Four also considered the affordances that toys furnish, and examined the particular socio-historical context, which informs the types of toys we provide for infants and toddlers, consequently configuring how they may experience the world. Hence I made a distinction between playthings, as anything that a child is inclined to play with, and toys as things designed specifically for play. Initially, however, the concept of play was discussed to take greater account of the playful and interpretative nature of human-media interactions and therefore to further establish a continuity of both existence and media. Winnicott’s understanding of transitional objects was again used to elaborate on the texture and reliability of these first possessions in creating and maintaining ontological security informing how very young children experience reassurance in transition.

In Chapter Five, *Screening Infants and Toddlers: The Ontological Significance of Television in the Lives of Very Young Children*, rather than concentrating on television content I examined the material specificity of television and its hybrid technologies and how their incorporation into domestic spaces have reconfigured ways of being in relation to them. As I noted, our propensity to analyze screens in terms of what appears on them rather than the screens *qua* screens, predisposes us to overlook the ways in which screens enter into our experiences in and of the world in other ways (Introna and Ilharco 2004, 224).

In the first instance, I considered how television functions in many of the same ways as other transitional objects; filling the gradually widening space between carer and child, standing in for nurture, and offering a consolatory presence which enables carers to be absent for differing periods of time. Television, like other transitional objects, gives the illusion of liveness through talking head content, particularly that which is directed at children. Yet, even when the television is not turned on, its constancy and capacity to mimic the reliable return of nurture situates it in the marginal status of sort-of-aliveness. As television has evolved its capacity to screen user-generated content allows the furthering of the illusion of

aliveness. The notion of aliveness is also supported by the ways in which adults and older children relate to television, alternatively answering it, yelling at it, or agreeing with it. With the ability to act as a conduit for VCRs and DVDs, children are also able to exercise regulated rights of ownership of television software, but not always the hardware.

From television's capacity to function as a transitional object I moved on to consider how it may be considered a facilitating microenvironment. In this section, I revisited Winnicott's take on the facilitating environment and Sofia's notion of container technologies. I argued that the primary function of the facilitating environment is to 'hold' children safely, to protect them from psychological and physiological harm and in this way the connotations for container technologies is apparent. Television, not only contains content and potential relevance, it also contains particular ways of being at the expense of others. Carers often use television to hold children's attention and keep them out of trouble while busy, but the status afforded television often also holds parents in place and near the child, furthering its capacity for nurture. As an aspect of human activity, engagement with television creates an enveloping space between the screen and the viewer enabling our understanding of television as a facilitating microenvironment.

Subsequently I proceeded to a phenomenological history of television, tracing the ways in which the materiality of television has changed over time and its implications for reconfiguring the domestic environment, confounding both our sense of space and time. The history of television is not linear, but rather it developed in differing and often conflicting ways, simultaneously becoming a personal screen and a cinematic screen. Early television on a small screen conditioned us to particular ways of being with television that no other technology had done: teaching us to attend to it carefully and setting up hierarchies of viewing, some of which continue to this day. Television also entered into domestic environments, replacing the piano, fireplace and radio as the centre of family activity, both discursively and materially. Television required changes to the spatial layout of rooms, where furniture was rearranged to enable

viewing. As TV has developed more sets have been incorporated into the family home, and where once it was a family event, it is now often an individual pass time as each member of the home moves to their own media consumption space. At the same time, however, homes are more than ever incorporating a specialized theatre or media room into their design. With this move, the television in ‘common space’ is now often the domain of very young children.

I then explored the phenomenology of screens more generally as a means to accessing the particularities of television as a screening technology. At the outset, I emphasized that screens and screen based media have become increasingly pervasive in infants’ and toddlers’ lifeworlds in the late twentieth and early twenty first century. A number of seemingly diverse technologies from toys to telephones now include screens. The proliferation of screens and their intertwining with our everyday lives affirms that we inhabit a world in which there are more screens than there are people. Increasingly, therefore, screens *qua* screens, have become not only a way of getting information about the world but also as an fundamental part of reality (Introna and Ilharco 2006, 57-58). The almost constant co-location of screens in infants’ and toddlers’ lifeworlds mediate the rhythms of everyday life in profound ways (Introna and Ilharco 2006, 68).

Introna and Ilharco (2004) suggest that as we comport ourselves towards screens we set up a ‘grounding intentional orientation that conditions our engagement with certain surfaces’ (Introna and Ilharco 2006,58). Hence both adults and children’s inclination towards, or chiasmic intertwining with screens reveals itself through posture, orientation and gesture. As adults, with an expectation of relevance, screens concern us or touch us and we conduct ourselves towards them. As such screens are often the focus of our attention and thus enter into:

our ongoing involvement in-the-world – as a screen – when we attend to it by turning it on. When we push the “on” button the screen captures our attention as it is the place, the location, the setting, the scene, in which what is supposedly relevant for us at that particular time is happening. (Introna and Ilharco 2006, 63)

Consequently in our engagement with screens we not only see what is on the screen but we are complicit in a particular way of being (Introna and Ilharco 2006).

While maintaining all the while that content is of secondary importance, it cannot be disregarded completely. It prompts certain orientational responses in even the youngest of children and with repetition, these orientational adjustments form a part of the child's embodied being-in-the-world, which I suggest is the basis for an expectation of relevance. Furthermore, television content is significant in the lives of infants and toddlers precisely because it attracts and holds the attention of significant human others in very young children's lifeworlds, which mediates the ways that attention is apportioned. On this point I referred to the distinction between co-presence and co-location to suggest that while parents or older siblings or others are co-located, when engaged with televisual content they may not necessarily be co-present, or available for interpersonal interaction. Moreover, adult attention to screens sets up a virtual space between others and the screen and a potential intersubjectivity between child and parent, as mutual orientation to the same screens (Senju and Csibra 2008).

Yet, as I ultimately argued, while screens may have the potential to attract and hold attention, attention is not the same for adults as it is for very young children. Consequently I problematized the notion of attention, suggesting that while some studies gauge attention on the basis of whether a child watches TV, very young children's modes of attention are not yet grounded in ocularcentrism, as adults are: they attend to television also in terms of mobility, audition, tactility and buccally. Moreover, very young children's mode of being is distraction, and television is one of many distractors in a child's life: at an early age, children are not able to attend for protracted periods of time. Television, for infants and toddlers, is one among an array of mediating technologies, which enter into their experiencing of the world but not in any straightforward or universal way. It enters into the rhythms of everyday life, shaping the environment in which children live and reconfiguring the dynamics of time and space, and hierarchies within the environment. Hence, while content is not insignificant, it only allows

us to access part of the picture, and cannot account for the ontological and perceptual significance of television in the lives of infants and toddlers.

*Infants, Toddlers and Interactive, Screen-based Digital Technologies* brought us to a consideration of the ‘high’ technologies of mobile phones and tablets. In this chapter I briefly considered the notions of virtual space telepresence to illustrate the trajectory from television to newer screen based media. Initially I elaborated on the term tele-vision as also a way of seeing things at a distance to demonstrate that television is merely one among many devices which enable tele-vision. The prefix of the term implies operating at a distance and is not exclusive to televisual technologies, but also refers to telephony. Tele-technologies, facilitating a virtual being with distant others and occupy the space between, with the aid of the technology. By allowing us to simultaneously inhabit our geographically embedded embodied space and other spaces with other people, it confounds our sense of time and space, yet gives us the impression of being there, in the no-space between us and others: telepresence. We cannot know whether very young children experience the virtuality of tele-presence in the same way as adults do, however, the ‘presencing’ effect that tele-technologies have on adults implicates carer-child co-presence. Elaborating and expanding on some of the previously used concepts the implications of other tele and interactive media were discussed to argue that the proliferation and holding power of new media have the potential to amplify and magnify the possibilities for oscillating attention and potential implications for co-presence and collocation.

By way of further clarification, from here I discussed the notion of ‘new media’, initially problematizing its novelty in the rapidly changing world of technological advancement. I elaborated on the characteristics of ‘new media’ which separate it from its predecessors: digitization, interactivity, connectivity, manipulability and mobility. These characteristics allowed us to change from being solely consumers of media to also become producers of media content and in turn changing our relationship with media and the virtual world. While very young children may not yet be producers, new media offer a level of control to even very young children which distinguishes them from their predecessors, configuring ever younger



children as ‘users’. These aspects of new media were then discussed in relation specifically to touch screen technologies and the possibilities they offer infants and toddlers. As with the previous chapter, I then embarked on a chronology of telephone use and its changing phenomenological implications, culminating in an analysis of a very young child’s use of a mobile phone. Ultimately I referred to the prevalence of new media in the lives of infants and toddlers and offered an analysis of the ways in which they may function as facilitating microenvironments and transitional objects which mediate children’s being in the world. I did this by offering a lengthy scenario of a family car trip and the dynamics which emerged around the use of technologies.

Using the specific examples of DVDs in cars, mobile phones and tablets, the chapter argued, as indeed this thesis has, that infants’ and toddlers’ experiences within the world are mediated by the technologies that enter into the gradually spreading space of *écart* in the process of maturation, informing how very young children may come to grips with the world, and ultimately understand their place within it. Acting as quasi facilitating microenvironments and transitional objects, the mediating technologies of ‘new media’ as they enter into human praxis, act in many of the same ways as toys, dummies and television, but each does so in particular ways which are specific to the physical properties of the medium in concert with children’s emerging corporeality.

### ***Where to From Here?***

Despite the scope of this dissertation, I have merely scratched the surface of the complexities of infant-toddler-media relations. In this thesis I have offered an approach to children and the media which does not rely on delineating ‘good’ or ‘bad’ media content any more than it relies on notions of passive victims, or active and sophisticated readers. I have rather argued that while content is a contributing factor which impacts children’s lived experiences of the world in relation to mediating technologies, the relation is more primary and embodied than we generally concede. We are now in a position to consider our embodied and socio-cultural ways of being as dynamic, fluid and constantly evolving; each in relation to the other in concert with mediating technologies.

By redefining technology in the terms afforded by Ihde's post-phenomenology, insisting on the primacy of infants' and toddlers' bodies in meaning making, and outlining the mediating potential of any material object this thesis also has implications for media studies more generally. In acknowledging that media is part of a spectrum of mediating technologies, we may now extend our investigation to the whole gamut of material objects rather than focusing on high technologies, communication or mass media. All mediating technologies necessarily communicate; their use value, societal and individual beliefs, values and attitudes towards media, children, and the intersection between them.

Not only does this thesis offer an alternative approach to children and the media, and a potential to expand media studies, it also allows us to consider that our own engagement with mediating technologies may be more primary and embodied than we might think. The centrality of bodies in the epistemological process, offers us a way of understanding ourselves as primarily, embodied beings, who are always-already inextricably involved with-in the world. It is in the process of maturation and enculturation that palimpsests of language, cognition and habits of being-with overlay embodiment. Therefore rather than studying older children and extrapolating downward, as is the predominant mode of analysis in the field of children and the media, we need to look more closely at very early childhood, and extrapolate upwards. By returning to the pre-linguistic and pre-cognitive relation we all have with our socio-equipmental environment we are able to glean significant insights into our own sensori-motor-affective interinvolvement with media as an aspect of our material culture.

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