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An affordance perspective on infant play in home settings: A 'just-right environment'

DR. HELEN LYNCH Department of Occupational Science and Occupational Therapy, University College Cork, and PROFESSOR NOIRÍN HAYES, School of Education, Trinity College Dublin, Ireland

INTRODUCTION

Children learn to be in the world through ***doing***: typically in the form of play, incorporating social connection and interactions. However, not all play is social and not all learning involves people: the physical environment is an essential element that is often taken for granted and under-valued in this whole process. The physical environment is more than just a setting for social play – it also influences play significantly and, therefore, needs to be considered as a core factor in determining good practice in play provision. Few studies have focused on the role of the physical environment in influencing play and learning in early childhood care and education (ECCE) settings and even fewer in home settings.

Learning environments have been identified as priority for researching infants' lives from the National Children's Strategy and from the knowledge that environments have been a relatively under-explored aspect in early childhood research (CECDE, 2007). Curricular and quality frameworks such as Aistear (NCCA, 2009) and Siolta (CECDE, 2006) have been developed for the early childhood sector. However, while these are intended to target early childhood learning, it is difficult to ascertain to what extent these guidelines can influence home settings. Furthermore, although home learning environments have been the focus of UK research (e.g. Melhuish, 2010; Melhuish, Phan, Sylva, Siraj-Blatchford, & Taggart, 2008) this is an emergent area of concern in Ireland.

Home settings in early childhood contexts include the child's own home, and other homes where the child may be minded. In Ireland's national longitudinal study *Growing Up in Ireland*, statistics show that 73% of families organise informal childcare for their preschool-aged children with relatives or non-relatives in their homes, rather than in centre-based settings (McGinnity, Murray & McNally, 2013). Home settings, consequently, are the primary context for early childhood learning and of significant importance for research.

In 2007, the Centre for Early Childhood Care and Education (CECDE) Ireland issued a national call for research to be conducted on learning environments of children in early childhood. It was through this opportunity that my own research journey began. My interest in home settings has come from my background as a children's occupational therapist. When children fail to thrive, and have struggles to develop, the occupational therapist's job is to determine the effects on their well-being and development, and the impact on their daily lives. Through evaluating self-regulation, sensory, motor and perceptual development, assessing activity and participation, and task-environment analysis, occupation therapists work to maximise the fit between the infant and the environment to best support learning and development. This requires a close connection with the infant's family and home setting to determine most accurately, the range and choices of tasks within the environment. For example, for families living in a first-floor apartment with no garden, the potential for the child to learn to ride a bike may be more limited than a family living in a rural setting with a lot of open space around the house. In addition, knowing about the family matters – it is through the shared family environment that children are enabled to play and learn. This includes family routines, habits, values, attitudes and play activities and preferences. Knowing about the home setting is therefore a vital consideration for effective practice.

INTRODUCING THE STUDY

This paper originates from a larger PhD study which described play interactions of infants under two within the home physical environment (Lynch, 2012). The purpose of the study was to address the lack of research into **early play development** in relation to **Irish home environments** of young children. The study explored and identified ways in which young children develop and learn to negotiate **objects and spaces** of everyday life in the home. The study aimed to explore the following:

- What is the nature of the home social/cultural environment?
- What is the nature of play in the home environment?
- What is the nature of the child's interactions with the physical home environment over time?
- What are the attributes/affordances of the physical environments that influence this developmental progression?
- What are the characteristics of the transactional process between child and environment?

STUDY DESIGN

A qualitative, ethnographic longitudinal design was used to allow in-depth exploration of particular aspects of our social and physical lives (Charmaz, 2006; Timmermans & Tavory, 2010). The study took place in five family homes over a twelve-month period (September 2009 to October 2010) to take into account the changing nature of home settings over time and across seasons.

Participants

The sample of participants was recruited through local groups such as the Cork Childcare Committee, the National Childbirth Trust, acquaintances and community groups. Five families consented to take part in the study from five different locations in the Munster area: living in both rural and urban settings and consisting of families of one, two and three children (Table 1).

Table 1: Introduction to infants and their families *Pseudonyms are used to protect confidentiality*

Infant and age at onset of study	Family: social setting	Home: physical setting
Karen: newborn	Maria – mum Dinny – dad Erin – sister, aged 6 Tadgh – brother, age 3	West Cork Rural Dormer home
Sarah: newborn	Vicky – mum Michéal – dad Michael – brother, age 2½	Kerry Suburbs – housing estate Small town Semi-detached home
Joe: 1 year old	Aisling – mum Sean – dad Martin – brother, age 3	Cork Suburbs – housing estate Small town Detached home
Amy: 1 year old	Aileen – mum Muiris – dad	Kerry Rural Two-storey, detached home
Hannah: 1 year old	Clare – mum Kevin – dad Liam – brother, born 9 months into the study Naoise and Emily – cousins	Cork Urban – along a busy city road Terraced home

Data generation

Participant observation was the primary method of data generation, which included the use of video, observation and interview methods. For this study, the home environment included the indoor and outdoor physical spaces, material environment such as toys or objects and the social environment such as the family. For the first meeting with the child and mother, demographic information was gathered along with a history of the infant's development to date and some environmental information. Each monthly visit lasted from one to two hours, with observations of play being from ten minutes to one hour in length, depending on the wakefulness or engagement of the infant.

Data analysis

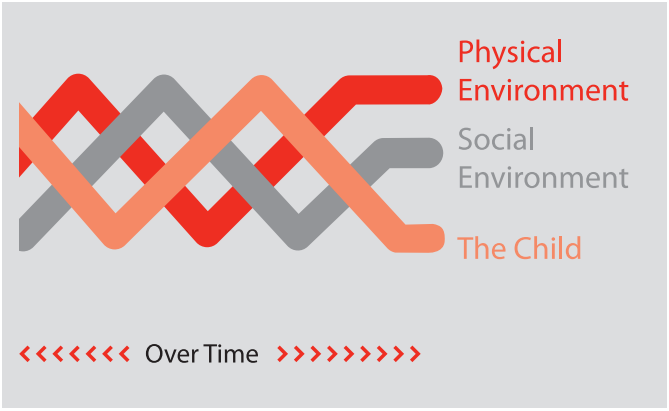
In this study, play events were analysed in relation to how the infant played with spaces and objects in the environment, rather than simply naming play items and frequency of use. Affordance theory guided the analysis of play events as it considers how individuals develop an understanding of the world based on the functional use of spaces and objects (Gibson, 1977). Affordances, or enablers, are intrinsic to the person-environment relationship as they are based on the person's ability to perceive the potential affordance in the environment (e.g. a step can be a place to sit and play for an infant compared to a way to go upstairs for the adult).

Findings

Play interactions were mapped from one month to two years through exploration of child-environment relationships. Findings illuminated the infant-environment relationship and identified that infants need spaces that can be described as **personal**, **social**, for **discovery** and for **mastery** in contrast to pre-schoolers who looked for spaces that were private, social or imaginary (Clark, 2007).

Completing the analysis through the lens of the physical environment resulted in the development of the transactional model (see Figure 1 on the following page). This emerged through the realisation that the infant-environment relationship is intertwined, each influencing the other: the physical environment is shaped by the social and vice-versa and it is through this interplay or transaction that the child moves and learns in the world.

Figure 1: Transactional model of ecological occupational processes (Lynch, 2012)



Infant play

Transaction between the child-physical-social environments resulted in a form of play depicted in the study as infant play. In the literature, four key categories have been identified that relate specifically to infant play: sensorimotor play (Piaget, 1962), object play (Belsky & Most, 1981; Fenson, Kagan, Kearlsey & Zelazo, 1976), exploratory play (Belsky & Most, 1981) and physical activity play (Pellegrini & Smith, 1998). Interestingly, although social play in children has been researched (e.g. Parten, 1932; Rubin et al, 1978), studies have typically focused on children over two years rather than on infants. Furthermore, in infants, researchers have concentrated on areas such as intersubjectivity and early communication (e.g. Trevarthen, 1998). In this study, the infants engaged in these expected forms of play, including social play. Early social play typically happened during interactions between the infant and family members who provided social affordances and scaffolded social play events. Due to the young age of these infants, socio-dramatic or pretend play was not yet evident but by age 2 had begun to emerge. The study found that infants play according to the perceived and actualised affordances in their environments – utilising varied spaces and places for play. This resulted in the ability to map play in relation to the body-space relationship:

- Phase 1: Being in space: birth–1 month
- Phase 2: Body space and body play: 1–4 months
- Phase 3: Near space and sitting play: 4–8 months
- Phase 4: Middle space and reaching play: 8–12 months
- Phase 5: Home space and exploring play: 12–18 months
- Phase 6: Home space and advanced infant play: 18–24 months

These phases are overlapping and dependent on the infants rate of development and the environmental supportiveness: the phases move from the infant 'being-in-the-atmosphere-of-doing' at birth to active mastery of the environment at 2 years.

Social affordances in infant play

Infants were found to engage in early social play during interactions with carers and siblings through observation, imitation and joint attention, and game playing in its simplest form. Key strategies used to engage infants in social play included enticement to play, modelling, verbal instruction or structuring the environment (Lynch & Hayes, 2014a). Parents orchestrated play in family homes and some integrated or embedded play in their daily routines while others liked to segregate play and considered it separate to family routines. Although four of the families had designated play areas at home, it was apparent that this strategy was primarily for order in the home rather than for play, a finding common in other studies (Primeau, 1998; Pierce, 2000). In fact, infants brought play items to where the parent was (often in the kitchen or family room) and chose to play nearby.

Social affordances did not only enhance play, they also shaped infant behaviour in general. During these first two years, play was found to be a central, integrated part of other tasks. We can see play in all daily routines of infants – at mealtimes, during bath times and toileting. The socialisation of infants into the broader family and social contexts involved limiting or marshalling the play activity to appropriate times so that by the time the infants were two, few were now playing during designated family routines (e.g., while eating at family mealtimes). Hence, although the physical affordances for play were still present in the environment, the social affordances had resulted in shaping infant play behaviours differently through what was socially acceptable or not (Lynch & Hayes, 2012a).

One significant finding in relation to learning environments was the influence of parental characteristics on play. This emerged through their values and attitudes towards the infant but in a broader way than had been anticipated. Parents were identified as being shaped by their own cultural experiences as children, including inter-generational influences as regards their own parents' work occupations. Furthermore, they also demonstrated varied ranges of playfulness and play styles during interactions. An ethnographic approach supported the emergence of this finding over time, where parents became more reflective and began to explore more their own reasons for why they behaved a certain way or on what influenced them. This resulted in a core overall finding: the important role of parental reasoning (Lynch, Hayes & Ryan, 2015). Parents were identified as using many forms of parental reasoning such as knowledge-based reasoning, sociocultural, future-based, personal, practical-based and narrative reasoning. Each contributed to parental reasoning processes in varied ways, influencing parental behaviour consequently, therefore influencing how play opportunities and environments were orchestrated. This perspective on

parental reasoning has great potential for professional practice in early childhood, in supporting a more family-centred approach to understanding parents' views, values and attitudes in terms of supporting optimal play environments.

Infant play spaces

Through studying the physical environment of the home, this study throws light onto the relationship between play-space interactions. The physical environment was identified as being a learning environment when it provided affordances for interaction that met the infants' needs as observed through their motivation and choices in play. Within this context, infant space play was determined by availability, variety and complexity of spaces and was often mediated by the parents, especially during stationary play before the infant is independently mobile. As infants became more mobile, they sought variety in their play spaces, often choosing to play in multiple sites at one time. This should not be viewed as disorganised, distracted play; rather it is evidence of expanded space play. Similarly, as their play interactions developed, infants demonstrated a desire for playing in places that provided complexity, such as spaces that afforded climbing or sliding, so the function of the play spaces became more complex. Infant space play, therefore, requires a range of available and varied physical features to afford multiple play opportunities. For young infants this included floor play and equipment that afforded opportunities for the babies to stretch and arch their bodies to explore space. For older infants, this involved platforms of different levels on which to play or to climb for play. Floor play and platform play are therefore identified as key characteristics of rich play environments for these Irish infants (Lynch & Hayes, 2014b).

In some cases, there was a lack of availability of space play. For example, floor play was noted as being unpopular for young infants in this study and hence some parents avoided placing their babies on the floor to play. At an older stage, another parent limited space play through the use of a baby-walker, which provided mobility but restricted the infant's movements. In these cases, infants were seen to be slower to develop independent space play compared to other infants. These aspects of space availability have been the focus of specific attention in the US where parents have been targeted through training programmes to increase their awareness of the importance of floor play. It may be that this specific feature of space play is one that needs more attention in the Irish context. Further research on this aspect would be important.

Outdoor play was identified as being less common than indoor play and families appeared to have fewer strategies around orchestrating outdoor play compared to indoor play. While indoor play was frequently orchestrated around family routines, few outdoor family routines were identified. Orchestrators of outdoor learning environments therefore need to take into account that they are influenced by the routines that can take place there. In designing outdoor play environments in home settings, consideration could be given to planning play alongside family routines to facilitate more outdoor play.

CONCLUSION: THE CONCEPT OF A 'JUST-RIGHT' ENVIRONMENT

Analysis of the environment provides detailed insights into infant interactions with the physical environment bedded within the social environment. The specific environments in this study that seemed to afford optimal opportunities for development included both object and space use, combined with the responsiveness of others (parents and siblings) to orchestrate play interactions in the physical environment. So processes that optimally engaged the infants were multidimensional, and provided physical, social and emotional affordances for successful play interactions. This study found that the ideal environment for infants is the *'just-right environment'* which takes a three-dimensional view of optimal play environments that include transactions between the infant, the physical environment and the social environment (Lynch & Hayes, 2012b, 2013).

Activity is always 'embodied and embedded' and performed in specific environments with specific affordances, opportunities and constraints (Adolf & Berger, 2006, p.164). Infants in the study showed different paths of development and their lives reflected the embedded nature of infancy when family contexts are taken into account. Equally, child characteristics leading to different rates of change and development reflect the embodied nature of development. Given these findings in relation to the specific nature of the infant-environment transactions, the environment needs to be construed as a just-right environment that specifically meets the needs of a particular child in a particular context.

A just-right environment involves availability of spaces and objects but also active participation on behalf of others in providing physical access to the environment, especially for infants who are stationary. It is not enough to have objects or spaces for play available, or to show and demonstrate how a toy works, but to have an ongoing dynamic process of enabling play to happen. Studies have shown that having a varied presence of toys in the home may be insufficient for infant development without the parents' involvement (Parks & Bradley, 1991). A just-right environment includes the ability of the parent to orchestrate the environment for access to the

available affordances in the home setting in a way that maximises successful interactions. This has been captured in the literature of being a process of facilitating the just-right challenge. Activities that have this just-right challenge lead to success and engagement and successful outcomes based on the interaction being not too difficult and not too easy (Bundy & Koomar, 2002). Consequently, these activities consist of moderately challenging tasks rather than highly challenging ones that can cause anxiety (Rigby & Rodger, 2006). Play is known to be highly related to an infant's sense of agency and control over the environment (Wohlwill & Heft, 1987). Therefore, a just-right environment aims to enable the infant to achieve mastery as a core aspect of play interactions.

TAKE HOME MESSAGES

- Consider how you can provide A JUST-RIGHT ENVIRONMENT.
- Encourage a play-rich environment through available, varied and increasingly complex affordances.
- Assess the spaces and object affordances for play in your setting rather than listing what you have available for the child: how things are used is more important than what is available.
- Use assessment tools that include affordances in the items being measured.
- Consider how to best orchestrate play both indoors and outdoors, including routine activities that take place there.
- When working with families, try to explore their parental reasoning to help maximise meeting the child's needs.
- Toys and places for play are less about material goods and more about noticing opportunities in the everyday: the power of the ordinary wins out!

REFERENCES

- Adolf, K., & Berger, S. (2006). Motor development. In D. Kuhn & R. Siegler (Eds.), *Handbook of Child Psychology: cognition, perception, and language* (6 ed., pp. 161-213). New York: John Wiley and Sons.
- Belsky, J., & Most, R. (1981). From exploration to play: a cross-sectional study of infant free-play behaviour. *Developmental Psychology*, 17, 630-639.
- Boeije, H. (2002). A purposeful approach to the constant comparative method in the analysis of qualitative interviews. *Quality and Quantity*, 36, 391-409.
- Bundy, A., & Koomar, J. (2002). Orchestrating intervention: the art of practice. In A. Bundy, S. Lane & E. Murray (Eds.), *Sensory Integration: theory and practice* (2nd ed., pp. 241-260). Philadelphia, PA: FA Davis
- Carroll, C., Murphy, G. & Sixsmith, J. (2013). The progression of early intervention disability services in Ireland. Infants & Young Children, 26 (1), 17-27.
- Centre for Early Childhood Development and Education. (2006). *Siolta: the national framework for Early Childhood Education*. Dublin: Centre for Early Childhood Development and Education.
- Centre for Early Childhood Development and Education. (2007). *An audit of research on early childhood care and education in Ireland 1990-2006*. Dublin:
- Centre for Early Childhood Development and Education. Clark, A. (2007). Views from inside the shed: young children's perspectives of the outdoor environment. *Education 3-13*, *35*(4), 349-363.
- Charmaz, K. (2006). *Constructing grounded theory: a practical guide through qualitative analysis*. London: Sage Publications.
- Clark, A. (2007). Views from inside the shed: young children's perspectives of the outdoor environment. Education 3-13, 35(4), 349-363.
- Coughlan, M. & Lynch, H. (2011). Parents as environmental managers: the Irish home as a play space for toddlers. *Irish Journal of Occupational Therapy*, 39 (1), 34-41.
- Fenson, L., Kagan, J., Kearsley, R., & Zelazo, P. (1976). The developmental progression of manipulative play in the first two years. *Child Development*, 47, 232-236.
- Gibson, J. (1977). The theory of affordances. In R. Shaw & J. Bransford (Eds.), *Perceiving, acting and knowing: toward an ecological psychology*. London: Lawrence Erlbaum Associates.
- James, C., & Chard, G. (2010). A qualitative study of parental experiences of participation and partnership in an early intervention service. *Infants and Young Children*, 23(4), 275-285.
- Kytta, M. (2003). *Children in outdoor contexts: affordances and mobility in the assessment of environmental child friendliness*. Doctoral Dissertation, University of Technology, Helsinki.
- Lynch, H. (2012). *Infant Places, Spaces and Objects: Exploring the Physical in Learning Environments for Infants Under Two*. (Doctoral dissertation). Dublin Institute of Technology, Dublin.
- Lynch, H., & Hayes, N. (2012a) Home environments as sociocultural settings for infant play *Occupation Diversity for the Future, Congress for Occupational Therapists in Europe*, Stockholm, Sweden,
- Lynch, H., & Hayes, N. (2012b) Exploring affordances in home environments for infants under two *Annual research conference for the Study of Occupation, USA*. Portland, Oregon, USA,
- Lynch, H, & Hayes, N. (2013) Exploring the home as a JUST-RIGHT environment for play *OMEP: Organisation Mondiale pour l'Educational Prescolaire*. Cork
- Lynch, H. & Hayes, N. (2014a) Social play in infants under two: relationships, environments and affordances *OMEP World Congress* Cork, Ireland,
- Lynch, H. & Hayes, N. (2014b) Untangling play occupations in infants under two. *Count Me IN: Child and Youth occupations conference*. London, UK.
- Lynch, H., Hayes, N. & Ryan, S. (2015). Exploring socio-cultural influences on infant play occupations in Irish home environments. *Journal of Occupational Science,*
- McGinnity, F., Murray, A. & McNally, S. (2013). *Mothers return to work and childcare choices for infants in Ireland*. Dublin: Growing Up in Ireland National Longitudinal Study of Children in Ireland: Department of Children and Youth Affairs.
- Melhuish, E. (2010). *Impact of the home learning environment on child cognitive development: secondary analysis of data from 'Growing up in Scotland'*. Scottish Government Social Research
- Melhuish, E., Phan, M., Sylva, K., Siraj-Blatchford, I., & Taggart, B. (2008). Effects of the home learning environment and preschool center experience upon literacy and numeracy development in early primary school. *Journal of Social Issues*, 64(1), 95-114.
- National Council for Curriculum and Assessment. (2009). *Aistear: the Early Childhood Curriculum Framework*. Dublin: NCCA.
- Parks, P., & Bradley, R. (1991). The interaction of home environment features and their relation to infant competence. *Infant Mental Health Journal*, 12(1), 3-16.
- Parten, M. (1932). Social participation among preschool children. *Journal of Abnormal Child Psychology*, 27, 243-269.
- Pellegrini, A., & Smith, P. (1998). Physical activity play: the nature and function of a neglected aspect of play. *Child Development*, 69(3), 577-598.
- Piaget, J. (1962). *Play, dreams and imitation in childhood*. New York: W. W. Norton.
- Pierce, D. (2000). Maternal management of home as a developmental play space for infants and toddlers. *American Journal of Occupational Therapy*, 54(3), 290-299.
- Primeau, L. (1998). Orchestration of work and play within families. *American Journal of Occupational Therapy*, 52, 188-195.
- Rigby, P., & Rodger, S. (2006). Developing as a player. In S. Rodger & J. Ziviani (Eds.), *Occupational therapy with children: understanding children's occupations and enabling participation* (pp. 177-199). London: Blackwell.
- Rubin, K., Watson, K., & Jambor, T. (1978). Free play behaviours in idle and lower-class preschoolers: Piaget revisited. *Child Development*, 47, 534-536.
- Timmermans, S., & Tavory, I. (2010). Advancing ethnographic research through grounded theory practice. In A. Bryant & K. Charmaz (Eds.), *The sage handbook of grounded theory* (pp. 493-512). London: Sage Publications.
- Trevarthen, C. (1998). The concept and foundations of infant intersubjectivity. In S. Braeten (Ed.), *Intersubjective communication and emotion in early ontogeny* (pp. 15-46). Cambridge: Cambridge University Press.
- Wohlwill, J., & Heft, H. (1987). The physical environment and the development of the child. In D. Stokols & I. Altman (Eds.), *Handbook of Environmental Psychology* (pp. 281-328). New York: Wiley Interscience.