

- may communicate that they have a wet nappy and may show awareness of bowel or bladder urges
- use their pincer grasp to pick up small objects and manipulate tools and objects
- can usually use a throwing action

THEORY: BRAIN DEVELOPMENT

The basic parts of the brain that help the baby live, such as the brain stem, thalamus and cerebellum, are built during pregnancy. If you think about the brain as a computer, these structures are the ‘hardware’.

Next to develop are the cells that will evolve into the neo-cortex (the grey matter on the outside of the brain where the connections are made); this is like the ‘software’ of the brain.

Every brain cell (neuron) we require is present at birth but the connections (synapses) are not yet established. The early years of life are a time of rapid growth of these connections.

However, by the third year synaptic pruning is also taking place; children lose the connections that they do not use and more room is available for well-used connections to be firmed up

All of a child’s experiences – the sensations of smell, taste, touch, sound, sight and movement – enable the connections between the billions of neurons present in the brain to be made.

When the neural connections are made, messages are sent and received through electrical impulses between neurons and through the release of chemicals and hormones.

As babies and young children have repeated experiences and practise actions, myelin sheaths are laid down around the connections which improve and hasten the messages between cells.

These are like electrical wires and the myelin acts like insulation, without which signals would go astray. This is the ‘wiring of the brain’, an on-going process of connecting neurons and consolidating trillions of synapses to form neural pathways.

A neural pathway is a series

FURTHER READING

- Gopnik, A (2009). *The Philosophical Baby: What Children’s Minds Tell Us about Truth, Love, and the Meaning of Life*. London: Bodley Head.
- Lieberman, AF (1995) *The Emotional Life of a Toddler*. NY: Free Press.
- Goldschmied, E and Jackson, S (2004) 2nd Edition. *People Under Three, Young Children in Day Care*. Routledge.
- Manning-Morton, J and Thorp, M (2003). *Key Times for Play: The First Three Years*. Open University Press.
- Karmiloff-Smith, A, (1994) *Baby it’s You*. London: Ebury Press. The series is available at: www.youtube.com/watch?v=1LX_zXaLmWE

- www.youtube.com/watch?v=7DlmiSvscls
- Lindon, Jennie *What does it mean to be one?* London: Practical Pre-School Books.
- For our series on the developing brain, visit: www.nurseryworld.co.uk/developing-brain; for more on schemas and how to support them, visit: www.nurseryworld.co.uk/schemas; for our past articles on gender, see: www.nurseryworld.co.uk/gender; and for a wide selection of past articles and series on inclusion, visit: www.nurseryworld.co.uk/inclusive-practice
- For parts one to three of our Starting points series, visit: www.nurseryworld.co.uk

of connections that have formed a reliable network in the brain. Pathways are activated by a particular experience, such as walking upstairs. The construction of these pathways is influenced both by environmental factors and by genetic inheritance.

Key aspects of emotional development

Although connections in the brain are happening rapidly at this age, the connections that help children to understand and regulate their emotions are still in the very early stages of development. In fact, these connections are not fully developed until early adulthood!

This helps to explain in part why a toddler’s emotions seem to fluctuate and change from moment to moment. The other explanation is that they are trying to understand so much, yet still misunderstand; they want to be

independent, yet do not yet have many of the skills they need: life for a toddler can be overwhelming, confusing and out of control, which can lead to strong emotional outbursts.

Fluctuating emotions

These typical behaviours can be seen in Finn when he screams out loudly for help when he gets frustrated, although this also shows his confident security in getting his needs met, which is positive.

Finn also often needs to curl up in Kate or Siobhan’s arms holding his two favourite ‘Bap-baps’ when he feels overwhelmed, tired or upset (one in each hand, which is an example of a typical interest in the number of ‘two’). If they are not available, he may curl up on the floor with the dog instead!

COMMUNICATION AND LANGUAGE

Finn’s interest in other children and his desire to communicate can also lead to frustration and

emotional outbursts when he cannot make them understand. He also gets upset when Liam misunderstands what he is communicating.

Because Liam doesn’t spend so much time with Finn, he is less in tune with Finn’s subtle communications, such as pulling at his nappy when he needs changing. This means they often need Siobhan or Kate to act as an interpreter.

Repetition and routine are key to the communications of toddlers. Familiar repeated experiences help them to practise their understanding of time and sequence and also to use familiar phrases over and over again.

18-24 months: key aspects of communication and language development

- At this age, toddlers:
- use sounds in play – for example, ‘brrrm’ for toy car
 - use single words and may start putting two words together
 - frequently imitate words and sounds
 - create personal words as they begin to develop language
 - express their needs in words and gestures
 - use one word or sign to stand for several things (holophrases) – for example, they may use ‘cat’ to mean all animals, not just cats. This is sometimes called extension
 - echo the last part of what others say (echolalia) and copy familiar phrases
 - often ‘talk’ to themselves while they are playing
 - understand the names of objects and may follow simple instructions



Starting points

Meeting the emotional and learning needs of the unique child



Part four Case study: Finn, 20 months

By **Julia Manning-Morton**, an independent consultant, trainer and author (www.key-times.co.uk/profiles/). She specialises in practice and provision that meets the needs of children under three and is an expert on the personal, social and emotional well-being of children and practitioners. Her publications include *Two-Year-Olds In Early Years Settings: Journeys Of Discovery* (2015) and *Exploring Well-being in the Early Years* (2014)

Finn 20 months

Finn is 20 months old and lives with his parents Siobhan and Kate and his older brother Aiden (6 years) in a small house in Liverpool. Finn and Aiden were both conceived by donor insemination; Siobhan gave birth to Aiden, and Kate gave birth to Finn.

Finn's heritage is Irish and English. Kate is English and Siobhan and Liam (the boys' biological father) are Irish. English is the language spoken at home.

Finn lives amongst a wide network of family and friends. Liam and his family are a significant part of Finn and Aiden's family circle as are Kate's mother (Pauline) and Siobhan's parents (Lisa and Kevin). They all live in the Liverpool area except for Liam's parents who have retired to Ireland but whom they visit regularly.

Siobhan and Kate also have a close group of longstanding friends who are significant in Finn and Aiden's lives. However, they joke that the two most important people in Finn's life seem to be Aiden and their dog (Bap-Bap), both of whom he adores!

SENSE OF SELF

Kate works part-time as an administrator for a charity organisation and Siobhan is a self-employed designer, working from home. Because their childcare needs sometimes change according to work demands, they needed childcare that could also be flexible.

Luckily, they found a childminder, Pat, who is able to care for Finn three days a week and pick Aiden up from school on those days too. She can also do additional days when needed as she cares for only two other children after school.

However, the main concern for Kate and Siobhan when looking for childcare was that the person looking after their children would have a positive attitude towards families with same-sex parents.

The Unique Child: in practice

Pat was able to reassure them about their concerns and showed them some books and posters depicting different kinds of families that she had bought from a stall at a Gay Pride festival.

She also showed them storybooks that she had made for other children, using photos of their families, pets and favourite toys, as well as the 'Special Boxes' she keeps for each child containing items from home

that are significant. These are examples of effective practices that can support a toddler's growing self-awareness, identity and self-esteem.

Pat also makes sure that she talks to Kate and Siobhan every day to exchange information about what Finn is doing both at home and at her house, so that she can provide as much continuity for him as possible.

For example, she had noticed that Finn was interested in looking at his whole body in the bathroom mirror when she changed him and liked to ask about the gender of every other child he met. When the answer was 'boy', he would point at himself and repeat 'boy'. So, Pat asked Kate what words they used for body parts at home and how she wanted her to explain gender differences to Finn.

They agreed that it was important to use the proper words for all body parts and to explain in simple terms to Finn that it is genital differences that make a person male or female.

This is also important because Finn is beginning to recognise when he needs a wee or a poo (although usually as he is doing it!) and will say 'poo' and pull at his nappy when it needs changing. Being able to use easily understood words for these things will help him to



better communicate his needs in his toilet learning.

UNDERSTANDING OTHERS

Finn is very interested in other people but especially older children. He watches everything Aiden does and imitates him and the other two children at his childminder's. For example, although he cannot yet manipulate a knife and fork easily, he insists on having them at each meal so he can be like Aiden.

Kate allows him to have them and tries to help him but Finn is trying so hard to be more independent that he rejects her help. This means that he gets frustrated and sometimes has a tantrum and twice threw the knife and fork to the floor.

Pat suggested that maybe Finn could have his own small set of cutlery and to always give him a

spoon too so that he can revert to using that or his fingers without 'losing face'.

For toddlers and two-year-olds, a developing sense of self is often shown through wanting to be able to do things for themselves even when they don't yet have the skills to do so. The practitioner's task is to support Finn's disposition of perseverance and moves to independence, while also understanding when he needs to retreat into dependence and needs comfort.

Finn's interest and awareness in himself and his body and how it works is developing in tandem with his interest and understanding of other people. Imitation is a key way in which he does this but this kind of imitation is not just copying, he is watching, interpreting

and making sense of other people's actions and behaviours as he imitates them and in so doing expands his social understanding.

Finn shows this in his growing ability to empathise with Aiden. For example, when Aiden fell off his bike, Finn brought him the box of tissues, pointing with concern at the grazed knee but then also pointing at his own knee saying 'oh dear' as if he wanted sympathy too.

18-24 months: key aspects of personal, social and emotional development

Growing self-awareness is a key feature of development at this age. Toddlers:

- understand themselves principally through their physical selves; they explore what their bodies can do and produce

- are beginning to form their social identities, understanding, for example, that they are a girl or a boy
- like to look at themselves in a mirror and recognise themselves in photographs
- enjoy finding their own nose, eyes or tummy as part of naming games
- imitate other people
- are eager to try out being independent but often retreat into dependence
- are interested in other children and may watch them as they play
- often like to look at photographs of themselves and their families and pets

ACTIVE EXPLORATION

Finn's persistence and determination are also shown through his strong exploratory

Children of this age understand themselves principally through their physical selves; they explore what their bodies can do and produce

impulse. He is constantly moving around and loves finding out how things work – by pushing the buttons on the TV and DVD player, for example.

He also enjoys exploring the sensory experience of materials such as sand, cornflour 'gloop' and paint. However, this has not always been the case. When he was younger he was very wary of touching sticky substances – an example where he did not imitate Aiden.

Recently, Pat observed Finn covering his arms and legs with paint, indicating an enveloping schema. He also appears to be interested in rotation; stopping what he is doing and running to watch the washing machine spin each time he hears the sound change. He also likes to roll inside the play tunnel in the garden, repeating 'round 'n round' to himself.

He combines his exploration of these concepts of containment/envelopment and rotation with his interest in things that move, particularly fire engines and dogs (or Bap-Baps as he calls them). He keeps his collection of big toy dogs and small toy dogs in two particular bags and gets upset if they get mixed up.

He also likes to watch the wheels of the sit astride fire engine as he rides it, saying 'nee-naw' as he goes. These are examples of Finn classifying objects and of his understanding that things are used in different ways.

The Unique Child: in practice

Pat also observed that Finn was fascinated by the marks left by the wheels of the toy fire truck when he rode it through a puddle. In response, she set up opportunities outdoors for him to be able to make marks through movement.

Among the resources that she provided was a builder's tray of wet sand for Finn to drive small vehicles through, and a long strip of lining paper and a tray of paint

for for him to run up and down making footprints.

18-24 months: key aspects of cognitive and creative/representational development

Movement experiences are important in helping toddlers to understand how the world works as they stimulate connections in their brains. At about this age, toddlers:

- begin to have a longer memory; can remember the past and anticipate the future.
- are interested in books and rhymes and may have favourites.
- recognise big things and small things in meaningful contexts
- move their whole bodies to music
- concentrate intently on an object or activity of own choosing for short periods
- may like to organise objects into groups and to fit shapes into spaces
- explore schemas dynamically – typically containing, transporting, enveloping and trajectory
- use toys or objects to represent things in real life as long as they have something in common.
- understand that things are used in different ways
- may show interest in making marks through movement
- pay attention to the dominant stimulus so are easily distracted by noises

18-24 months: key aspects of physical development (gross and fine motor)

Moving helps toddlers to strengthen their muscles and bones to gain more balance and dexterity. Toddlers:

- may walk confidently and are able to stop without falling
- may kneel, squat, climb and carry things around
- may be able to climb onto an adult chair forwards and then turn round to sit
- may walk upstairs holding on to the wall or bannister and come downstairs, usually by creeping on their tummies