

Science briefing Creating space for connection

The Centre for Early Childhood's Explainer on creating space for connection describes why it is valuable for babies and young children when we adjust the pace of our interactions.

This briefing summarises the science behind this animation.



Watch the Explainer Series on the
Centre for Early Childhood website
[centreforearlychildhood.org/
the-explainer-series/](https://centreforearlychildhood.org/the-explainer-series/)

Pacing unpacked

1. When we pace our interactions with children, we adjust our tempo and slow down to help them to process information and respond. Pacing creates space and time for meaningful connection, giving the child greater opportunity to engage positively in an interaction or activity.
2. Pacing is about matching our approach to a child's needs and capabilities, helping them stay interested and engaged without feeling overwhelmed. Pacing means knowing when to keep going and when to slow down or pause.

3. Pacing is linked to other concepts that are unpacked in the Explainers Series such as attunement and contingent responsiveness. Pacing relies on adults being tuned in and responsive to babies' and young children's cues. For example, an adult may notice a child averting their gaze or fidgeting in a way that suggests a child is becoming overwhelmed and therefore give them more space and time.
4. Pacing requires adults to use their own social and emotional skills, such as pausing before they speak or act. It is advised that if you ask a toddler a question you should wait at least ten seconds before you say anything else. Often the answer to a question can arrive one minute or more after you ask it, so it takes patience to give the child time to respond.
5. Practicing pacing can help adults to develop their own social and emotional skills. For example, one study found that parents who had support in paying attention to their child and waiting for the child to respond showed changes in the regions of the brain responsible for self-control¹.



Understanding how babies and young children experience the world

Pacing matters because babies and young children's brains are still developing, and they do not process information as quickly and efficiently as adults. Slowing down our interactions, movements, expressions and gestures may be essential if they are to make sense of what is happening and react.

Babies and young children do not take in the same amount of detail as adults: their sensory systems are less developed. For example, babies and toddlers' visual processing means that they see more of a jumbled mass of features, compared to what adults experience. Babies and toddlers have lower temporal resolution of attention. They cannot interpret fast-changing visual or auditory information, as adults can².

Babies and young children are also still learning how to focus their thoughts, to filter out background noise and focus on pertinent information. It is much harder for them to focus their attention on one thing, such as listening to one person speak in a busy room³. If lots of things are going on at once, their brains may become overwhelmed because they cannot tease apart and process the different information⁴.

Babies and young children's language and motor skills are also less developed, meaning that once they have processed information they may need more time to respond.

Pacing is something adults often do naturally, without thinking about it

Research shows that adults often interact with babies in ways that help them to process information, such as slowing down and exaggerating actions. These adaptations help children notice what is important and 'tune in'.

Three examples observed by researchers are:

1. **Parentese:** Adults often naturally talk to babies in a higher pitched, slower and more exaggerated speaking style⁵. This captures babies' attention and help them tune in to the sounds within words in ways that supports language development⁶.
2. **Motionese:** When interacting with babies, adults often use slower, exaggerated and repetitive movements, and are more enthusiastic and interactive⁷.
3. **Emotionese:** Adults often use more exaggerated emotional expressions when talking to babies about feelings, helping them to learn to recognise emotions⁸.

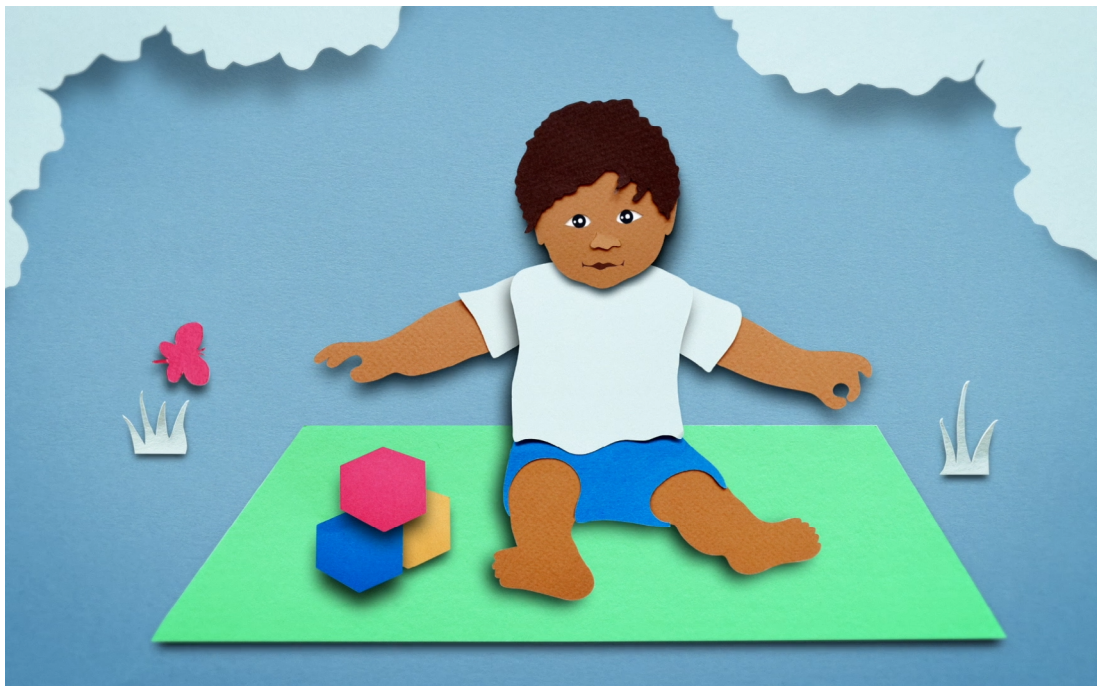


The design of traditional products for babies – such as picture books – reflects their need for things to be simple and slow. Sharing books with static, clear pictures helps children to make sense of things which might happen too quickly for them to process in the real world – a small baby may see a smile clearly in an illustration but may find it harder to make out a fleeting grin in an interaction. When we read books with babies and young children, we might notice they spend a long time looking at the pictures or returning to look again at earlier images.

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Picture books with no words make it easier to slow down and let baby or child take the lead and set the pace, sometimes pausing on the pages or even going backwards.

Babies and young children often enjoy doing the same things again and again, such as asking for the same book or pressing the same button on a toy repeatedly. This kind of repetition supports their learning. Repeating experiences helps them notice new details, make connections, and gradually build a deeper understanding of what they're seeing, hearing, or doing⁹.



Pacing supports social and emotional development

Slowing down the pace of our interactions and introducing more pauses can help babies and young children calmly process information and respond. It gives them the chance to engage fully in interactions and activities – which supports a range of developmental outcomes.

Pacing also models what respectful, reciprocal interactions look like, providing a template which will help them to develop nurturing relationships in the future. For example, if a parent notices things are becoming overwhelming for a child, pausing and getting down to their level, helping them with a task (like doing buttons up or putting shoes on), this demonstrates to a child how they might help a friend when they are finding things difficult.

Pacing helps a child to feel safe and loved

When things are happening too quickly or are difficult for a baby or young child to process, they may become overwhelmed. They may become distressed, freeze, or turn away as a natural defence mechanism.

Adjusting our pace to meet a child's needs ensures they feel safe in their interaction. It shows that they are seen and respected. Pacing affirms that their emotions, cues, views and wishes matter to us, and that their experience of the world is taken seriously.



Using pacing in practice

If you are a practitioner working with families, you might introduce the idea of pacing and help caregivers consider how to adjust their interactions to match their child's developmental stage, so avoiding overwhelming moments or frustration. Explaining how babies' brains process information more slowly might help parents understand why their child sometimes struggles to respond to fast-paced requests or in busy environments.

You might also highlight strengths and point out examples of natural adaptation, such as when a parent uses slower speech to connect with their babies.

If you are working with children directly, you might reflect on how you yourself use pacing. You might think about everyday transitions. What can you do to help children have the time they need to process what's happening and move between activities at a pace that feels comfortable?

When talking to families, terms pausing, slowing down, or going at a child's speed might make this concept easier to understand and use.

References

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