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It's child's play

Jean Piaget revolutionised our approach to children. But, says our correspondent, he underestimated their abilities. Even four-year-olds can learn philosophy

By Claudia Hammond

IF YOU'VE EVER occupied a toddler with a washing-up bowl full of water and some plastic cups and jugs, you have Jean Piaget to thank. Today's parents may not realise it, but the way we raise our children is heavily influenced by the theories of this Swiss psychologist, who died over 20 years ago.

Piaget is considered the father of developmental psychology, and has been voted by the British Psychological Society the greatest psychologist.

His central idea was that children do not think like little adults. As Peter Sutherland, a lecturer in education at Stirling University, explains, this was revolutionary thinking. "The idea had been that a child is like a miniature adult who learns in the same way as an adult — if I want to know something, I find a book and accumulate the knowledge. But Piaget showed that with a child this idea is totally wrong. A young child learns through touching and feeling and using their senses."

Piaget saw children as scientists, investigating how the world works through their own experiments. After enough attempts a child learns that the water from a large saucepan simply won't fit into a tall, narrow jug, despite its comparative height. Eventually children change their ideas about size to fit in with their discovery. Learning through trial and error at home helps them to make sense of the world around them.

Thanks to Piaget, play is now seen as an important part of learning. "There's an increasing awareness among parents and teachers of the importance of play. It used to be seen as something that was just done, but Piaget showed that it has a

role in a child's development," says John Oates, a senior lecturer in psychology at the Open University. Pioneers such as Freud and Maria Montessori stressed the importance of play, but what gripped Piaget was the way in which play can help children to develop their thinking.

Piaget's ideas have so filtered through that the idea of getting into a mess is seen as part of life both at nursery and at home. Mucky play provides children with the chance to experiment.

As a parent you might also find yourself turning to concrete examples to explain something abstract, such as maths, to your child. To teach addition, you're more likely to reach for some pennies or plastic bricks than for a pen and paper. This is Piaget's influence again — he showed that children find maths easier if they have concrete examples in front of them.

After endless conversations with children, Piaget discovered a logic behind the entertaining mistakes that they make. A child might tell you the reason the sun comes up is that it wants to warm you up. This makes perfect sense if you look at the way in which small children understand the world: everything that happens is centred on them.

To look further at this, Piaget devised one of his most famous studies — the three mountains task, inspired by his walks with his family around Geneva. Children were shown a three-dimensional model of three mountains, along with pictures of the model from each side. They then had to choose which picture corresponded with the view a doll would see if placed on the other side of the mountains. At the age of three most children simply picked the view from their own side, but by about nine, most children could do it. He concluded that the younger children were un-able to take another person's perspective: they were egocentric — not deliberately selfish, but unable to see things from someone else's point of view.

Many of Piaget's experiments have since been criticised as flawed. Piaget, who died in 1980 at the age of 84, believed that children must pass through certain stages of reasoning and cannot move on until they're ready. Some believe that this causes both teachers and parents to underestimate children's abilities and holds them back. According to Karen Murriss, whose company Dialogueworks runs courses in

creative thinking for businesses and schools, "it's amazing how Piaget has permeated society". As a result, she says, "we don't credit children with enough". Small children can succeed in complex thinking if the task is explained to them in the right way.

With the right encouragement children can achieve complex thinking that can help with all their learning. Murriss trains teachers to hold philosophy classes for children as young as four, which Piaget would have considered impossible. Tuckswold Community First School in Norwich has held such sessions for the past eight years (even at reception level) and Sue Eagle, the head teacher, says that she has seen the impact across the curriculum, from better problem-solving in maths to an increased curiosity in geography.

"If you trust children, expect high-quality things of them and you are prepared to wait, then they will give you what they've got inside them," Eagle says. "They learn to respect each other's opinions."

Murriss works with parents, too, suggesting ways of instigating conversations at home: if you're reading out loud, encourage your child to think by asking how he/she knows an object in the story is real.

Eagle believes that we need to give children time to think their ideas through: "If a child of four or five is struggling with a thought, they don't want an adult jumping in to rescue them, which is what we tend to do."

But even if Piaget was wrong about some of the details, he was the first to look systematically at how children's thinking develops, setting the agenda for decades of research as well as shaping the way both parents and teachers view children today. As Einstein put it, Piaget's discovery that children think in a different, but to them logical, way from adults was "so simple that only a genius could have thought of it".

Claudia Hammond presents a documentary on Piaget's life and work at 11am tomorrow on Radio 4
www.dialogueworks.co.uk

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