**[Karen Hope]:** Professor Carla Rinaldi, you actually mentioned in your first question, when she was president of Reggio Children proposed the question, "Can a three or four-month-old child develop theories? I like to think so, because I feel that this conviction can lead to a different approach." So what do you think it means? Or what does it look like when children develop theories and what is the role of the educator in the theory making process?

**[Sandra Cheeseman]:** Yeah. Okay. Well, I think the answer is yes, yes, yes, yes, yes, absolutely. I think we've got lots of evidence that they are thinkers and theorisers from birth. And I think if we think about the very first encounters we have with newborns, I think they're theorising the whole time. Who is this? Where am I? How do I make sense of this? How do I make this work for me? And so they're based on a lot of instinctive behaviours, but they build up patterns of behaviours and expectations around what's happening. So I think absolutely they are theorisers from birth. And I think we've got to really acknowledge that they're actively thinking. They're probably exhausting themselves with thinking and trying to understand where they are and what's going on.

I read a book fairly recently about how infants learn, and it was fascinating to go into... it's a psychological text, but it's really based on some experimental work with babies about how they actually learn about things. And one of the examples they give is how a baby learns about an apple. How does a baby understand what an apple is as opposed to a piece of furniture or a statue or something, a sculpture? And there's this idea of statistical learning, that it's by repeated patterns of observing and making sense of what you're seeing that babies learn what an apple is and what its purpose is. And so the first time the baby encounters the apple it's in a bowl on the kitchen bench and they're just seeing it. And then someone picks up that apple and eats it, and then they start to make sense of, "Oh, okay." But just seeing it once probably isn't enough and when they see that behaviour repeated, they start to really pick up on this pattern and that's how they start to form their theories.

So I think one of the really important things to understand about babies is that they're watching and they're absorbing all the time. And this has a good side to it and it also has a bad side to it, because I think sometimes when I come in infant rooms and I hear staff talking amongst each other, but there's no real recognition that the baby's listening in. Everyone thinks, "Oh, that's the baby. We're having the adult conversation." But actually the baby's really tuned in. And the baby watches people walk around the room, they watch the way they do things. And this is the way they learn. That it's this statistical learning, they're building up layers and layers of knowledge so that they can make sense of what's happening. So I think there's enormous evidence of babies as being thinkers and theorisers from a very early age.

So I think what's important in talking about infants' theories, is that we have to acknowledge from the outset that we will never going to know what's going on in their head or how they're theorising. So we have to speculate. And I guess there's a lot of controversy in early childhood about the right of educators to speculate, because I was always taught, no, your observation had to be really objective. It had to be just what the eyes saw. And then your interpretation had to be strictly according to the Child Development Theory that you were offered to analyse that against. And I guess I've really thrown that up and gone, "No, it's not enough when you're working with babies." They want us to speculate for them, I think. They want us to try and guess what it is they're thinking. And they want us to make our best attempt.

Now we can never say that we've got it right, we know what's going on in anyone else's mind. But the idea of speculating and having a best guess at what the child is thinking and what their motivations might be, really helps us then to enter into that encounter with them in a really genuine way. But we really need to be cautious about it, because it's not about putting our own assumptions onto the infant. And this can be quite destructive I think, if we assume that we know what the baby is thinking. So I think whenever we're being speculative, we've got to really acknowledge, "We don't really know, but we're having our best guess."

I witnessed something really beautiful the other day with an educator who was sitting at a table and it was lunchtime with a couple of other toddlers. And there was a young child on the floor playing and one child dropped the spoon. And the child on the floor scooped up the spoon and as soon as he had it in his hand, he looked to the educator. And I was thinking, ah, he's looking, because he knows that's not his spoon. He knows he's not supposed to have that spoon, but he looks to her to see if she's going to do anything about it. But she actually didn't see it because he's just slightly out of her view. So he notices that she's not reacting in any way and so he's just holds the spoon. And then the child who dropped the spoon, reaches over and says, "Ta. Ta." He wants the spoon back. He's not giving up the spoon, no way. He definitely understood the intention of the child saying, "Ta."

But the educator sitting on the other side of the table thought he was saying, "car." And so she's entering into a conversation with him about cars and it was really lovely and he's going, "No." She's kept saying, "Oh, do you want your car?" "No," he's saying. And he's, "Ta. Ta.". Anyway, she persists with this conversation and he's quite happy to go along with her misinterpretation of his vocalisations, but anyway, then she notices what's happening. And she says, "Oh, I see what's going on." And then she's really apologetic to him that she's misinterpreted what he said. In the end, it doesn't matter. She was entering into a dialogue with him, he was engaged in it, he wasn't bothered that she wasn't really catching on to his exact message, but he was very, very skilled at getting his message across. And I think it's these episodes, when if we don't speculate and we just say, "Oh, you shouldn't have that spoon. Here, give it back to me." But if we can enter into the child's world and what they might be thinking about, we approach that situation really differently. And we see it as really clever. And we see both children as having really sophisticated behaviours in engaging with their educator, but also in getting their needs met. So I think that speculation can become a really important tool for us.

**[Karen Hope]:** I really picked up on your comment then about children, particularly babies, do notice what's going on. They do notice staff moving around the room and we would be silly to think they didn't. And it was interesting because I was thinking about something I saw a few years ago in a toddlers space in an Early Learning Centre, where they're all sitting at the table, waiting for their lunch and all sitting there with their bibs on. And one of the educators came around behind them with that with a tub of nice warm face washes, but lent over the top of the child and did this. And I was in the room. And I thought, if you had no warning that someone was coming to you... If you think about this as an adult, someone from behind me tonight, comes and washes my face. It really would give you a bit of a fright. And with a very simple tweaking then of, down on their level, giving the face washes to little children to wipe their faces. You've taken something that you had control of with your host glasses and taking those classes off and given them to a child. To use your earlier analogy. And I think those opportunities are there every single day in baby spaces, but we perhaps don't capitalise on them.

**[Sandra Cheeseman]:** Yeah. Look, I think that we're very fixated on the task. The task needs to be done. And I absolutely, I know how busy it is the babies' rooms. But we can do that task just as quickly and effectively by offering it to the child to do themselves, or at least to have their best go at it. There's lots of small changes I think that we can make in it. And it really does come back down to that lens that we look through, how do we see this child? Are they the subject of the work that we have to do? Or are they the protagonist? Are they the invitee?

**[Karen Hope]:** Well, it's interesting the use of the word protagonist there. There's a terrific book published by Reggio Children about mini stories, which are series and often photographs. What we perhaps might call loosely here, some learning narratives, and there's a great set of them called 'Francisco and The Tube'. And it's a baby and he's sitting on the floor with a long cardboard tube and he's putting crayons in it. And there's a series of photographs that show he's... You can almost hear the thinking coming through the pages, where he puts the crayons in the tube, but they don't come out. The crayons have disappeared. So the theory might be they're gone, they're lost. But when he elevates the tube a little more, up a little higher, the crayons come out. So this is a revelation. This is a hypothesis that then he has to show that to his friends, "Look what happened.". And he puts his tube up. And this is a tube and a box of crayons. So there is neither money nor time needed for that, particularly from educators. But what you do need is a smart, engaged educator.

**[Sandra Cheeseman]:** Yeah, absolutely. I think that the work of infant educators is so intellectually rigorous and it's underestimated. Just as we often underestimate the capabilities of babies, I think we underestimate the intellectual rigor of working with babies. And taking that time to see what their theories might be and allow them to work out their own hypotheses.

[Copyright Victorian Curriculum and Assessment Authority](https://www.vcaa.vic.edu.au/Footer/Pages/Copyright.aspx) 2021