



Jean Piaget's Theory of Cognitive Development

Stages 1 and 2

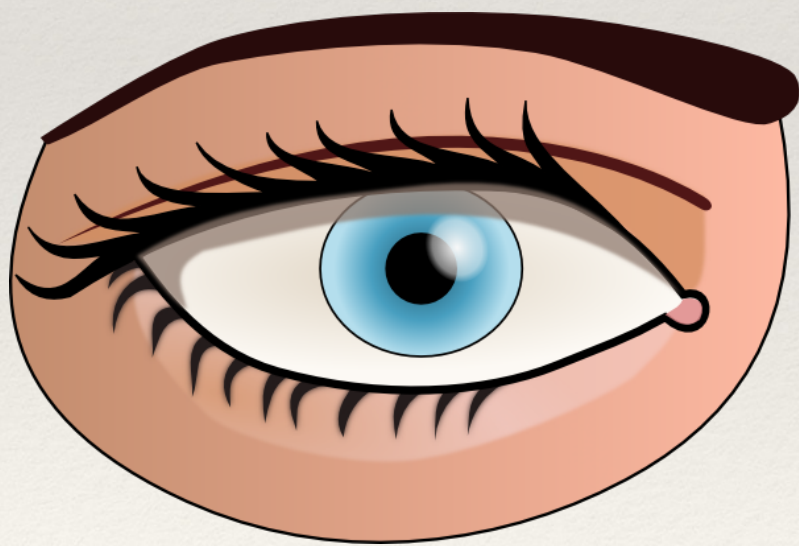
Stage 1: The Sensorimotor Stage



The Sensorimotor Stage

Birth-2 years

During this stage, infants learn and develop through their sensory experiences (such as hearing and seeing) and their motor actions (such as sucking and grasping).

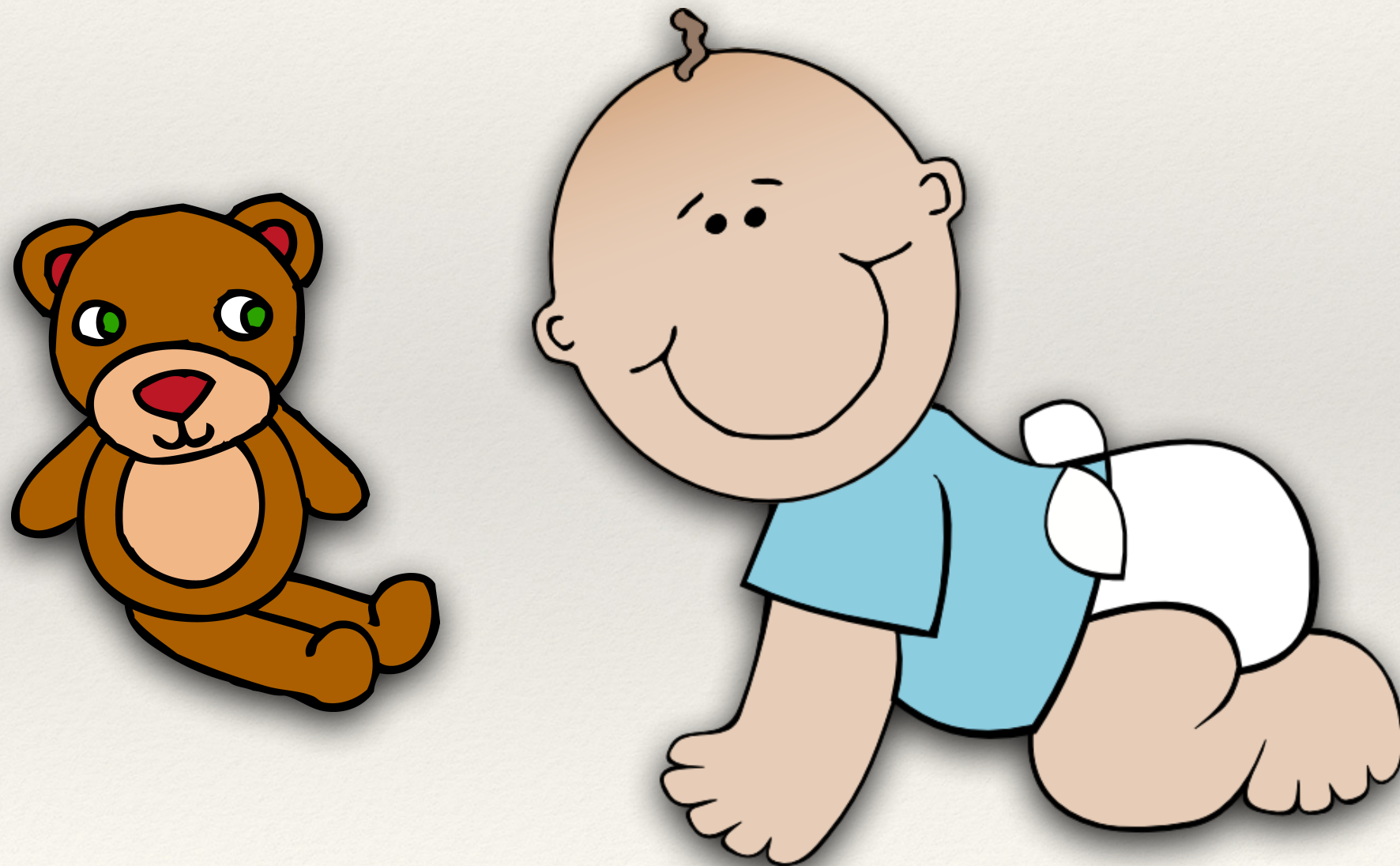


sensory

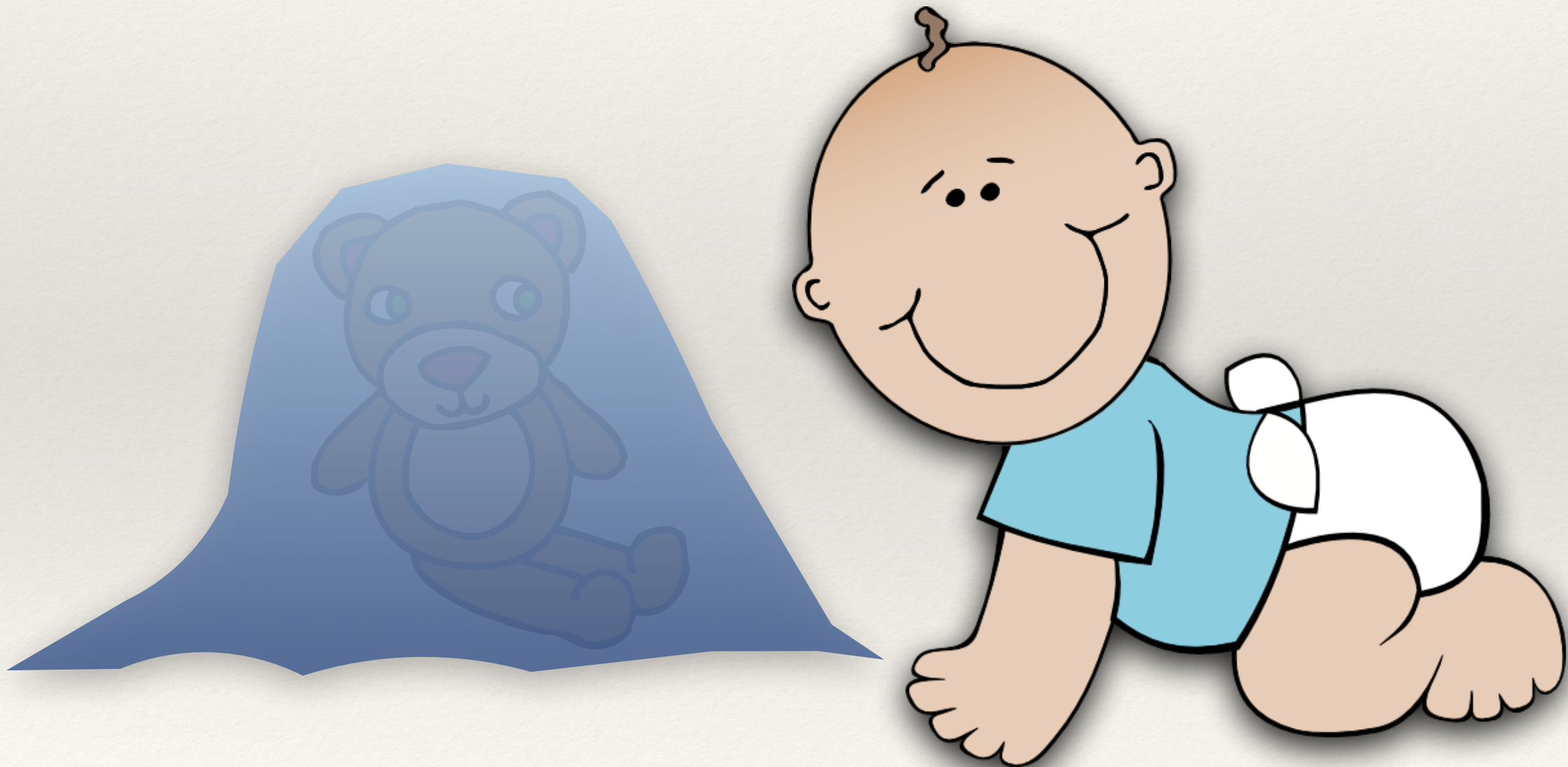


motor

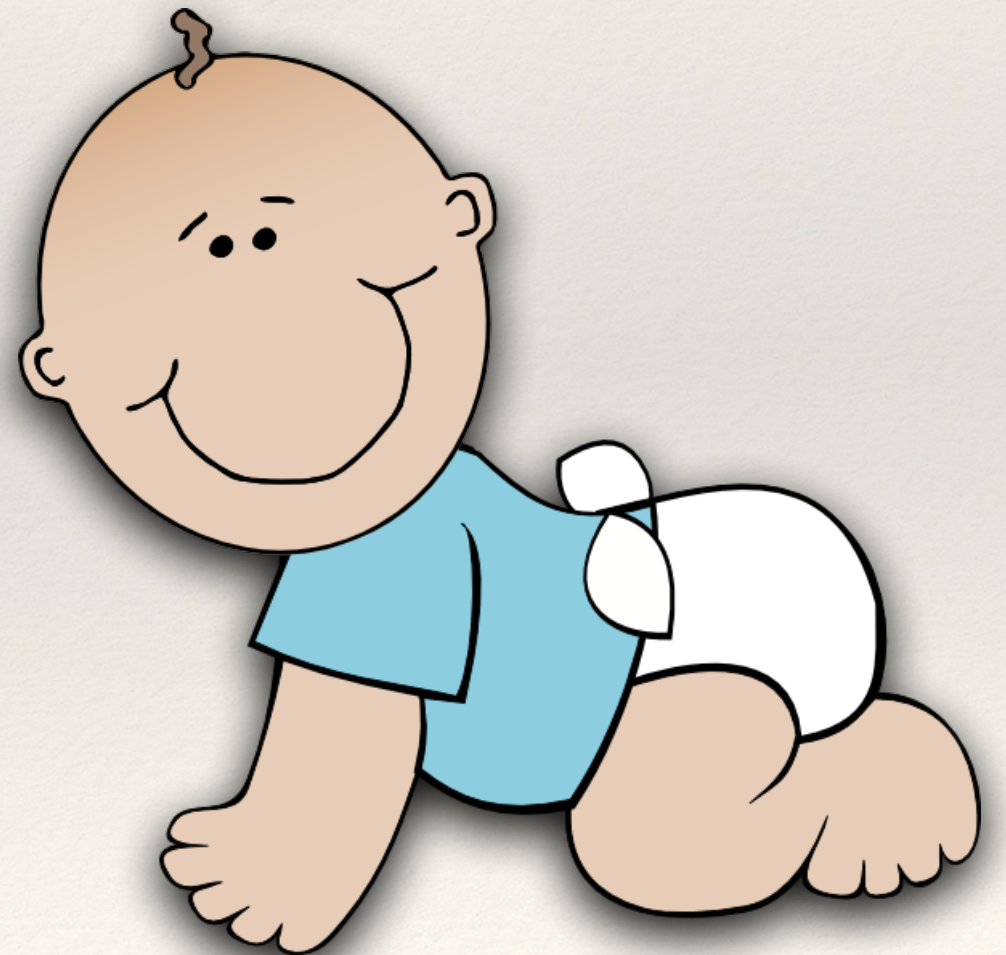
The crucial achievement of this stage is the child's developing understanding that...



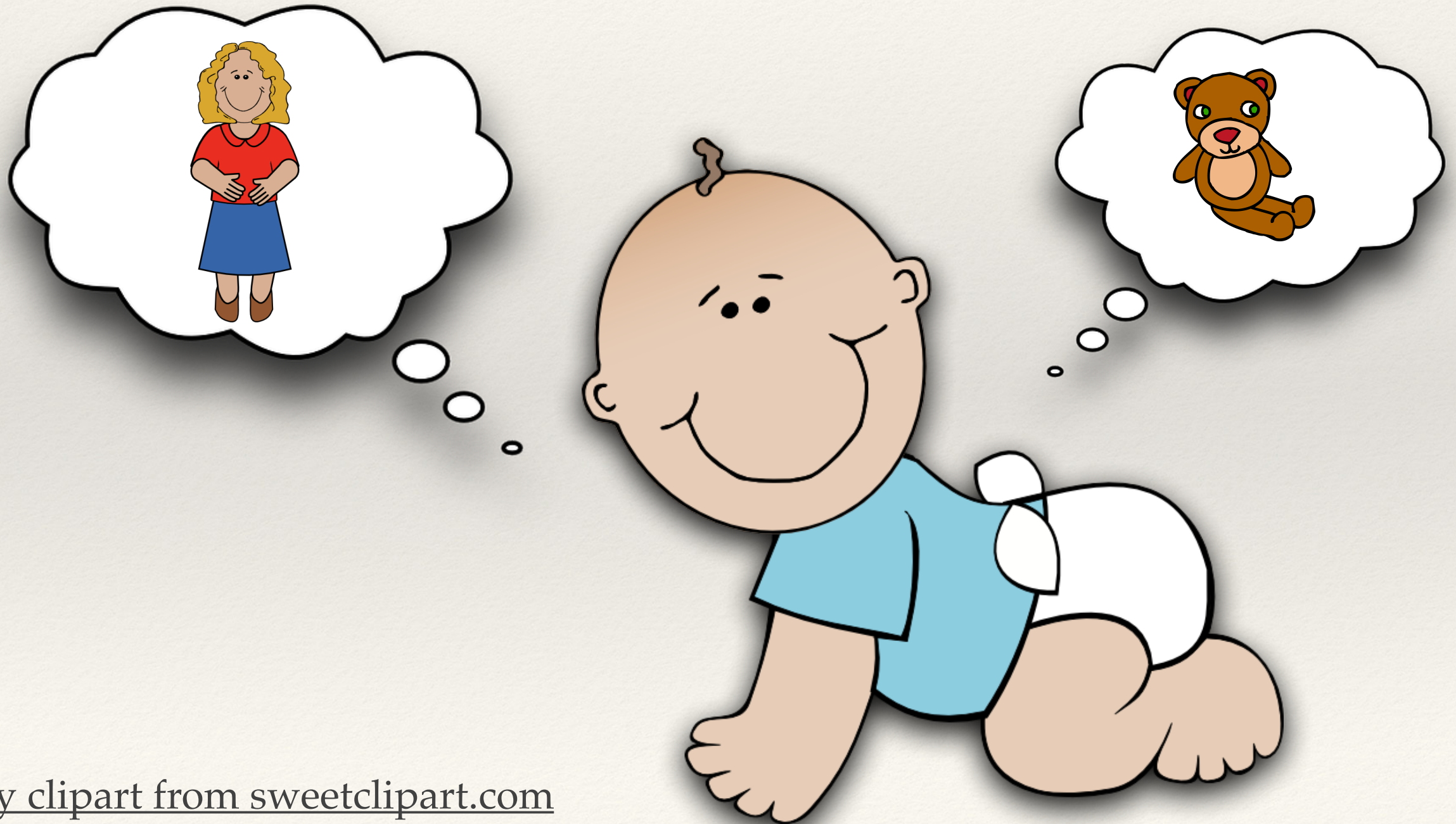
**...an object still exists, even if it can
no longer be touched, seen or
heard.**



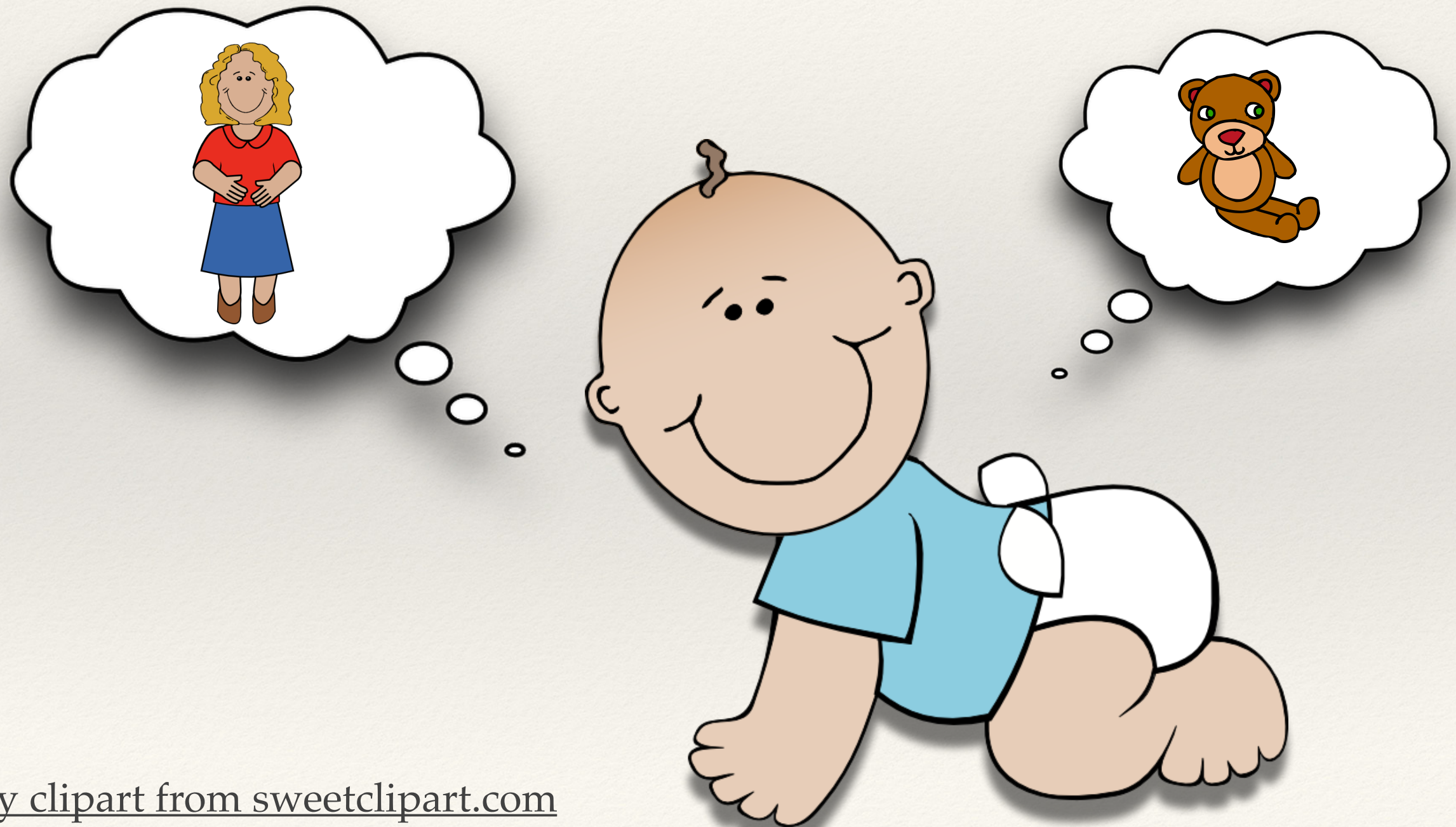
The development of object permanence shows that the baby is beginning to create **mental representations** of the external world.



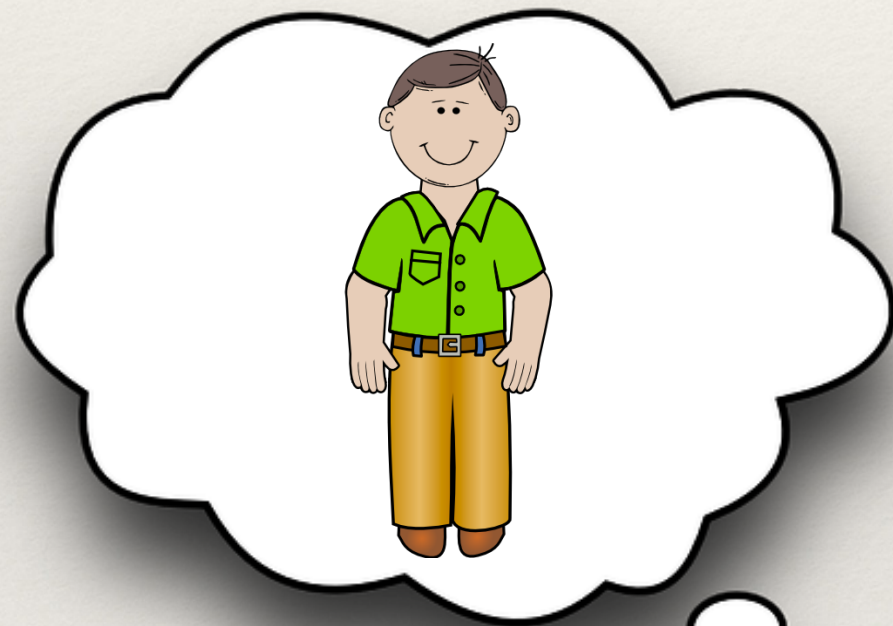
In other words, the baby is developing the ability to use mental symbols to represent the world.



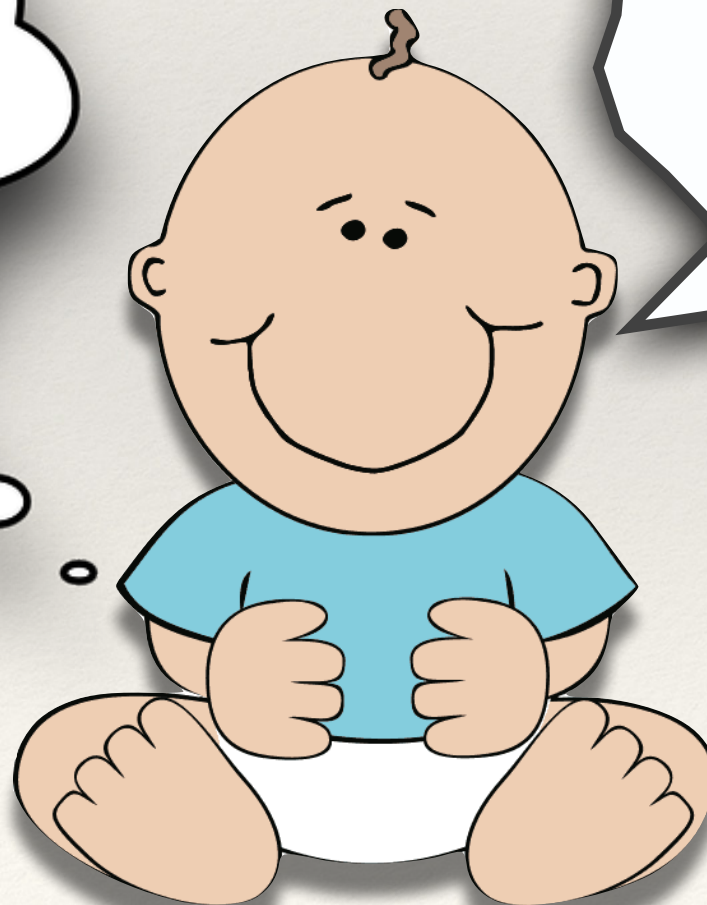
That's a form of thinking.
That's also a form of memory.



In the last six months of the sensorimotor stage, the baby begins to develop symbolic thought, especially language.



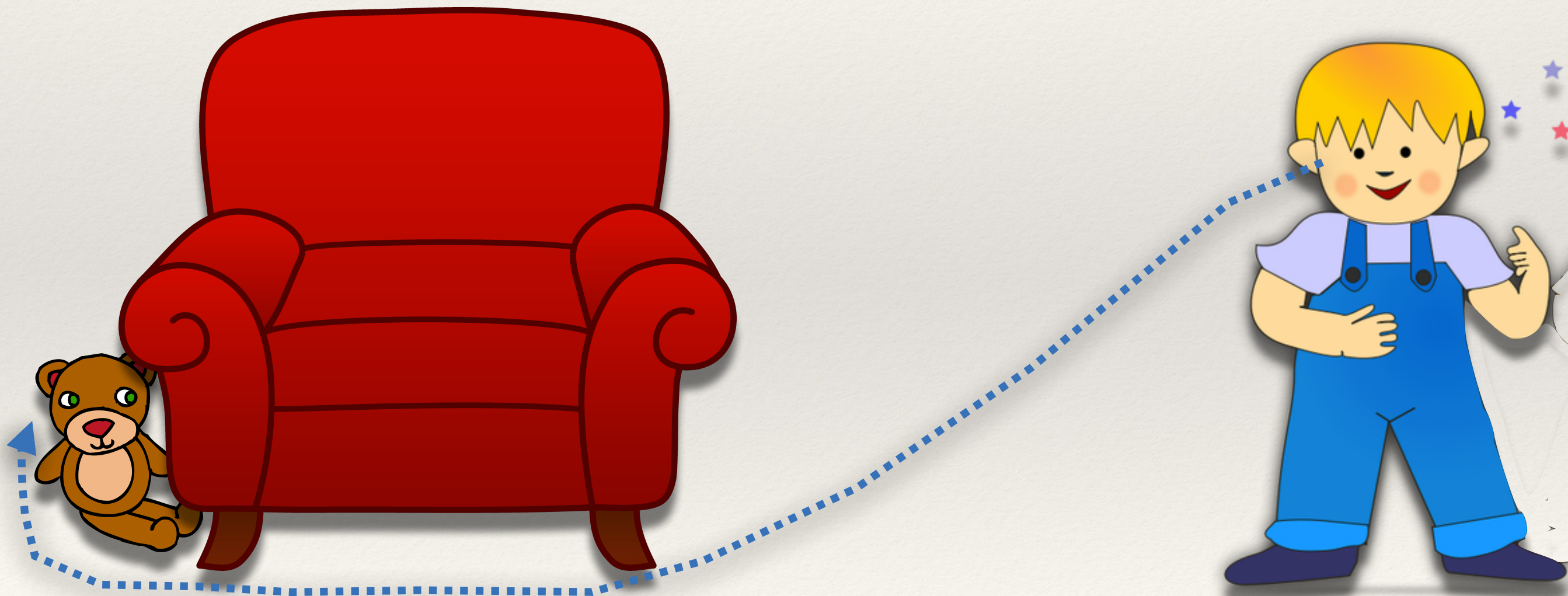
**mental
imagery**



**Want
Dad!**

language

The other major achievement is goal-directed behaviour: being able to carry out a sequence of motor movements directed towards achieving something.



Stage 2:

The

Preoperational

Stage



The Preoperational Stage

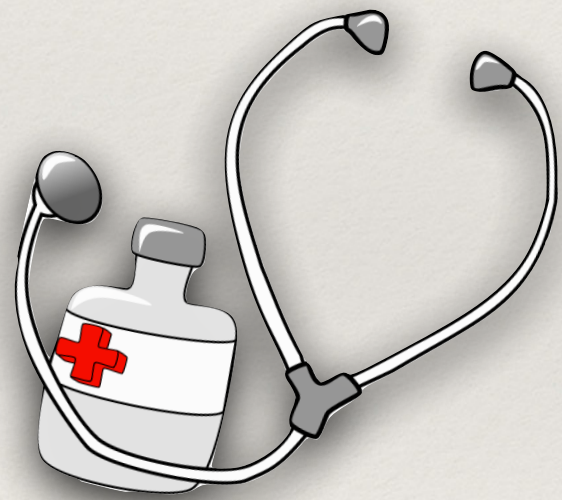
2-7 years



Children develop their abilities to think symbolically as they:

- increase their language skills dramatically
- engage in pretend play, taking on imaginary roles and using play objects or props to represent real-life objects

Children learn to use symbols such as words or mental images in order to solve simple problems and to think about things they are not experiencing here and now, becoming...



doctors, teachers, firefighters or superheroes...

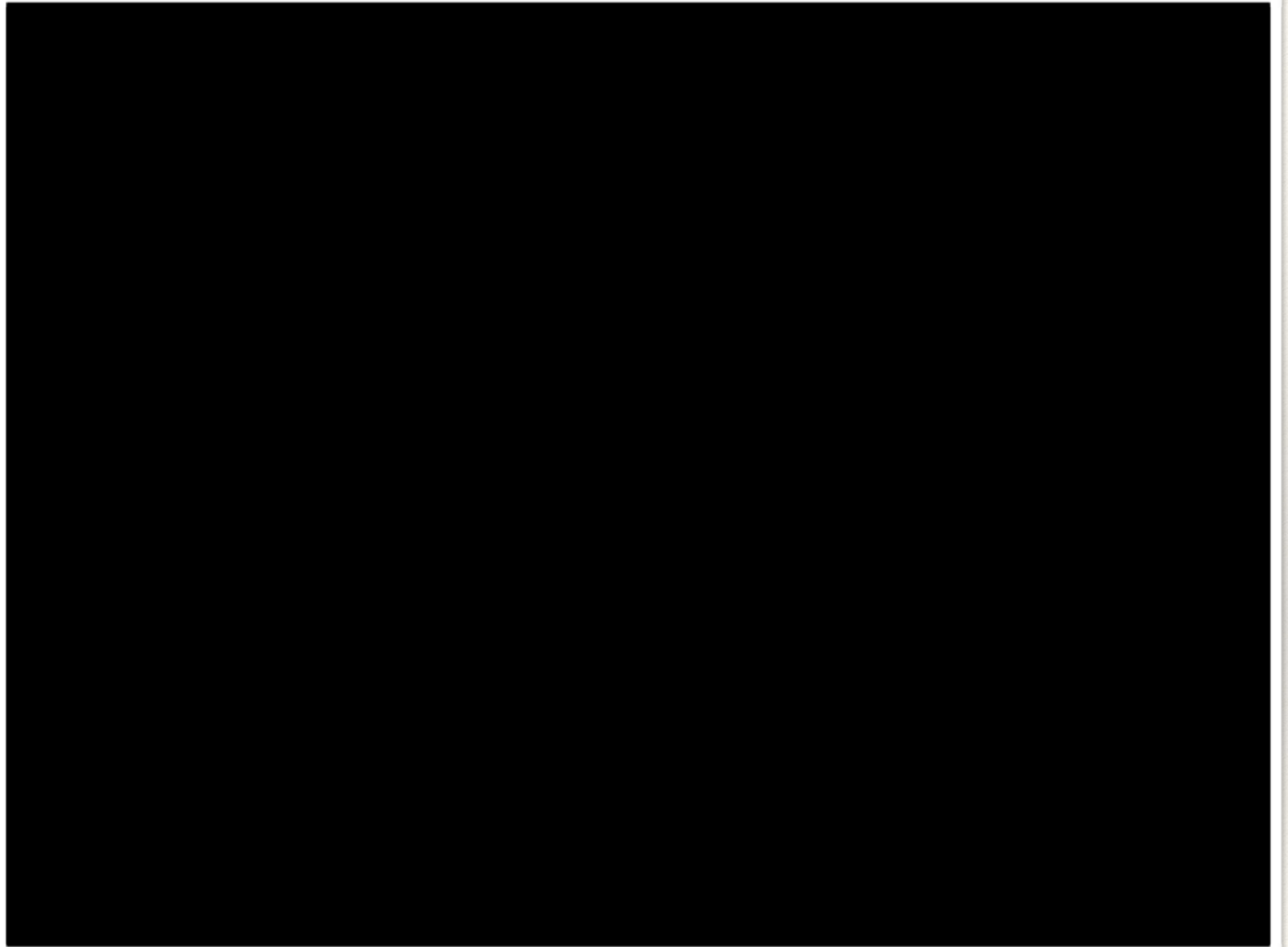
Flaws in Preoperational Thinking



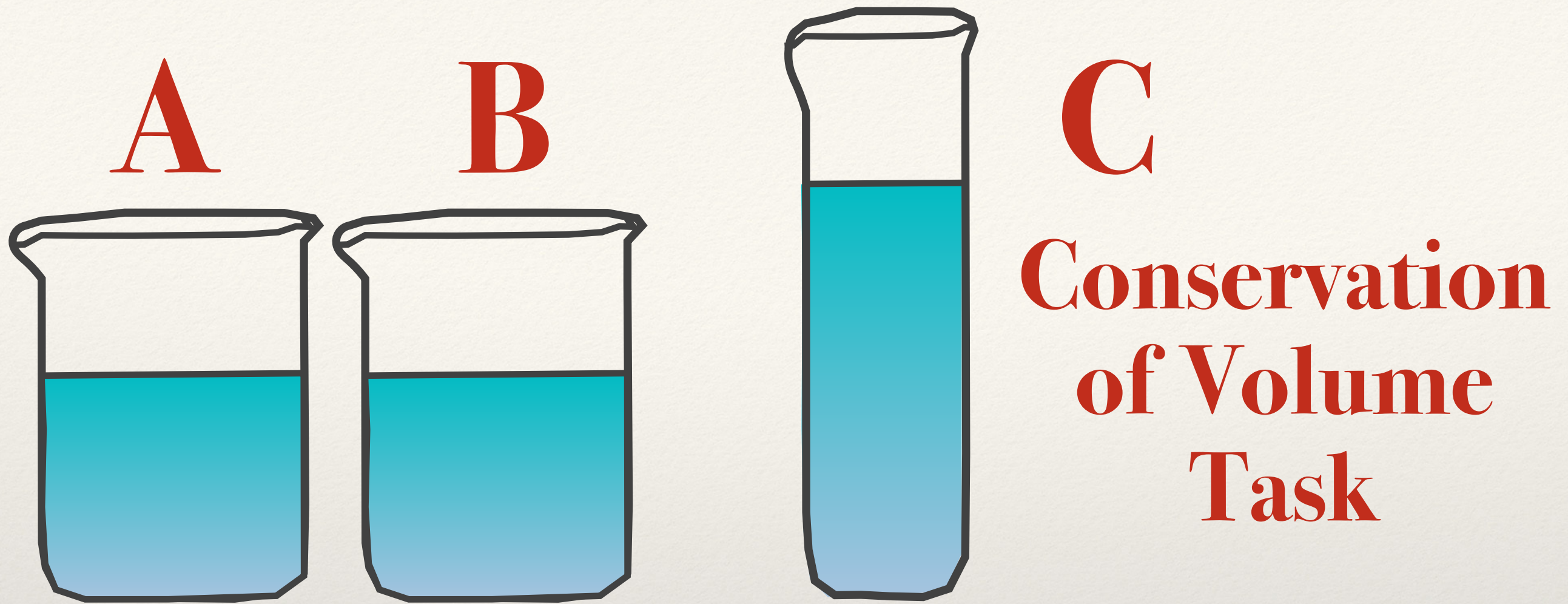
The video on the next slide will give you an insight into the kind of logical flaws a child in this stage may display. This video provides examples of

- a child's difficulty in **conserving**
- a child's tendency to **centrate**
- **irreversible** thinking

Conservation



[Watch this video on YouTube](#)



“Conservation is the ability to understand that redistributing material does not affect its mass, number, volume or length.”

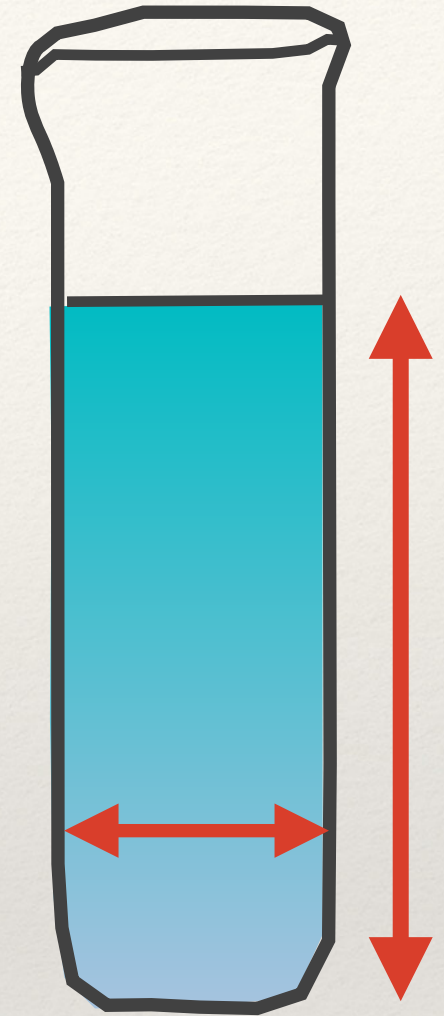
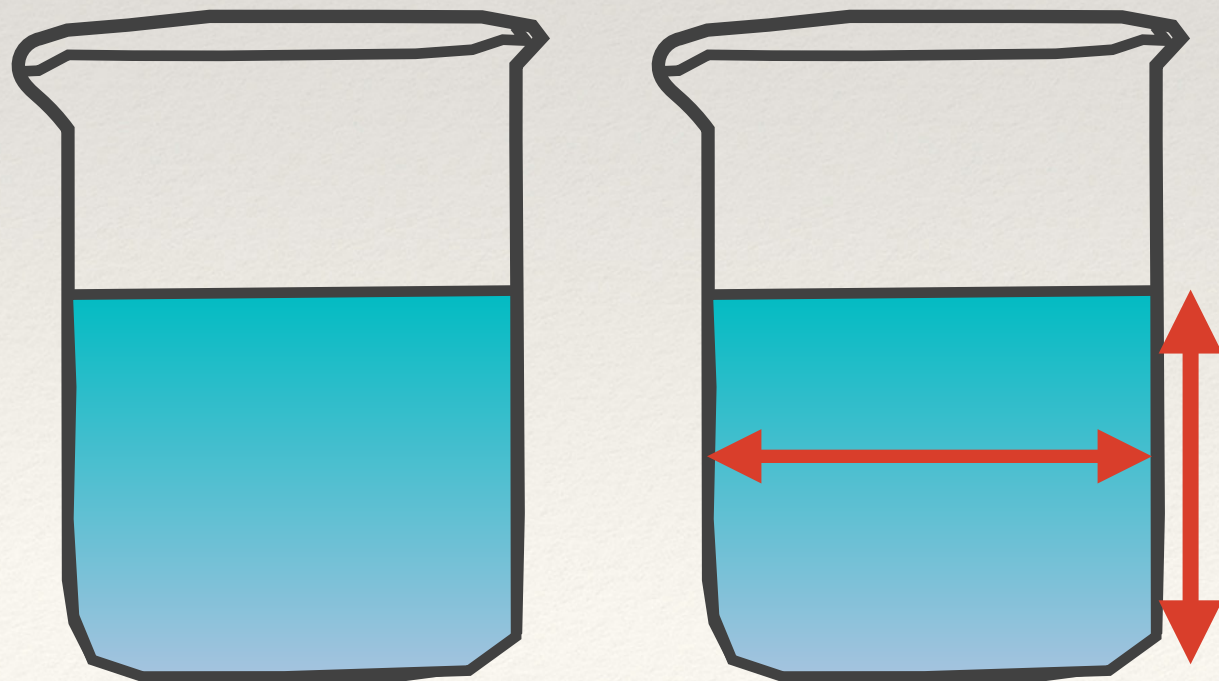
Definition: Saul Macleod from Simply Psychology

A child has **difficulty in conserving** because of two other cognitive shortcomings that make this kind of judgement difficult: **centration** and **irreversibility**.

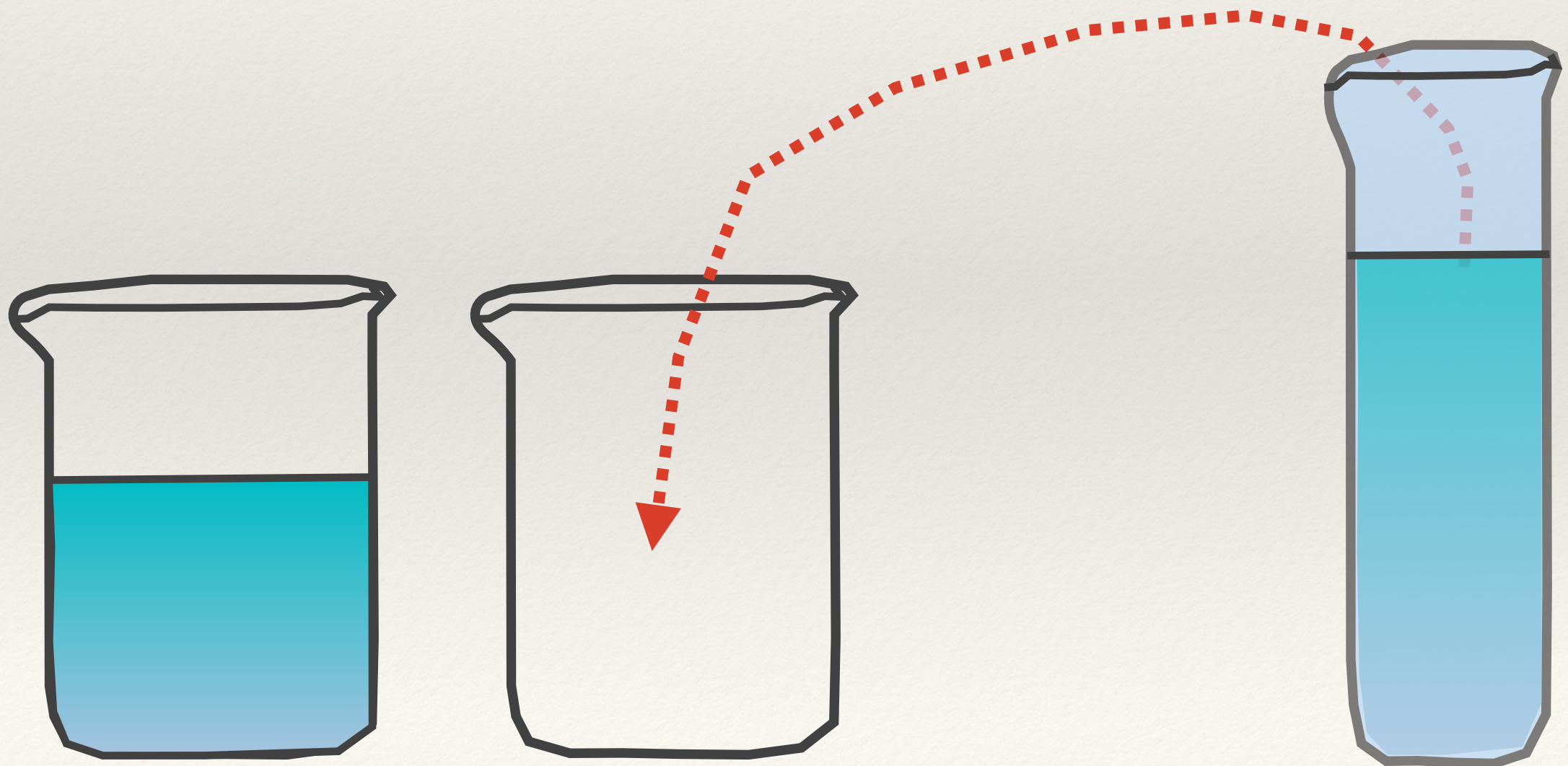


Centration is the tendency to focus on one aspect of a task whilst ignoring or overlooking other, equally important aspects.

For instance, in the conservation of volume task, the child might “centre” or concentrate on the **height** of the water in the beaker yet overlook its **width**.



Irreversibility is the inability to mentally rewind a process. The child cannot visualise what would happen, for instance, if the liquid were poured back into the original beaker.



Words for describing Piaget's Theory

object permanence centration

goal-directed behaviour

sensorimotor

symbolic thought

conservation

cognitive

irreversibility

preoperational

Words for describing Piaget's Theory

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preoperational sensorimotor
irreversibility conservation

a Two of Piaget's stages are...

b Language is a prime example of ...

c Two achievements of the first stage are...

d The inability to rewind a mental process is called...

Words for describing Piaget's Theory

object permanence centration cognitive
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irreversibility conservation

e Knowing that something still exists even if it's not present is called...

f An infant combines movements and input from the senses in order to learn in the _____ stage.

g Another word for thinking or mental abilities is _____ functions.

Words for describing Piaget's Theory

object permanence centration cognitive
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h In this stage, children's symbolic thinking is increasingly impressive, but there are still significant flaws in their cognitive abilities.

i Focusing on one element of a task or problem to the exclusion of other elements

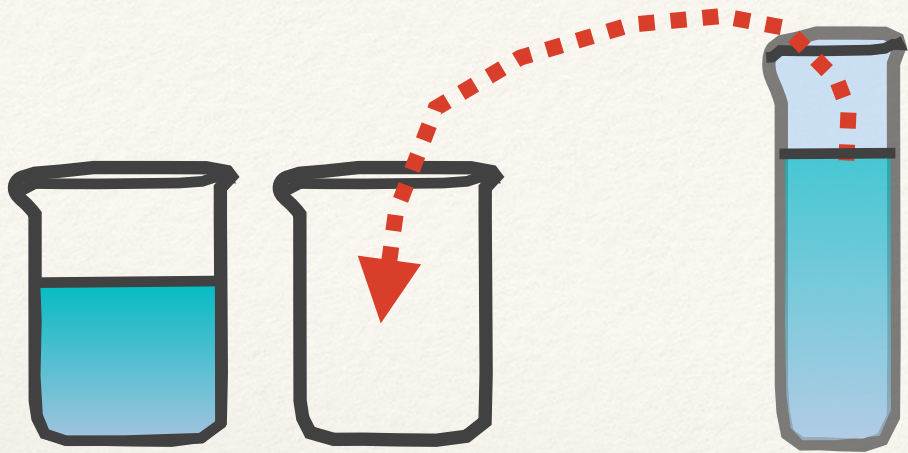
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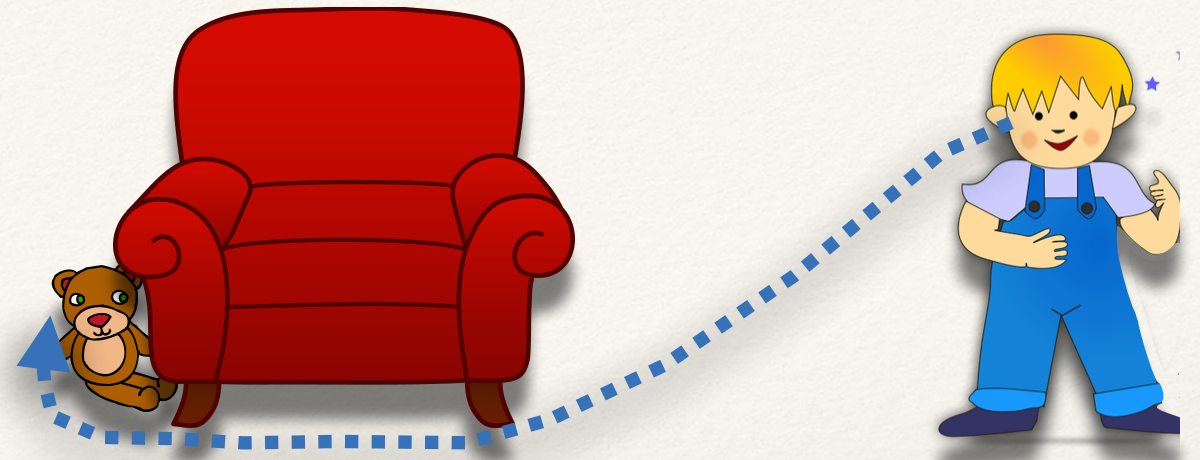


j Knowing that a line of coins does not increase in number just because someone spreads the coins out requires an understanding of...

Picture Quiz



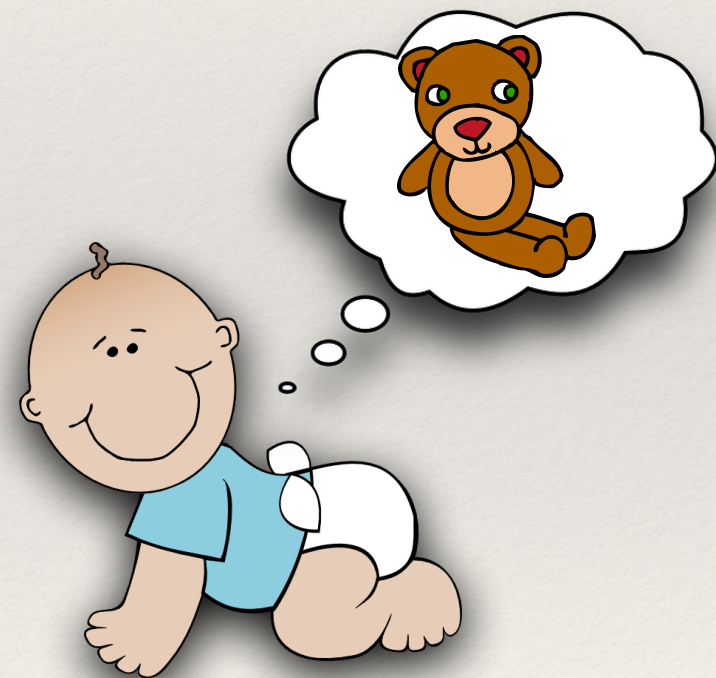
a Not being able to do this mentally



b He can plan a sequence of movements.



c They can imagine being someone else.

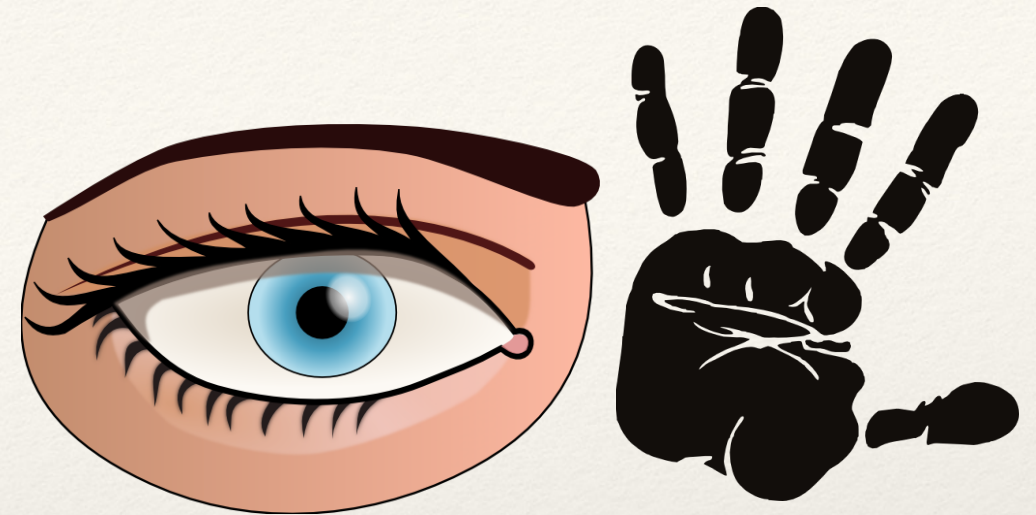


d The baby knows it exists, even though it can't be seen.

Picture Quiz



e A baby can visualise a parent and use words to represent ideas.

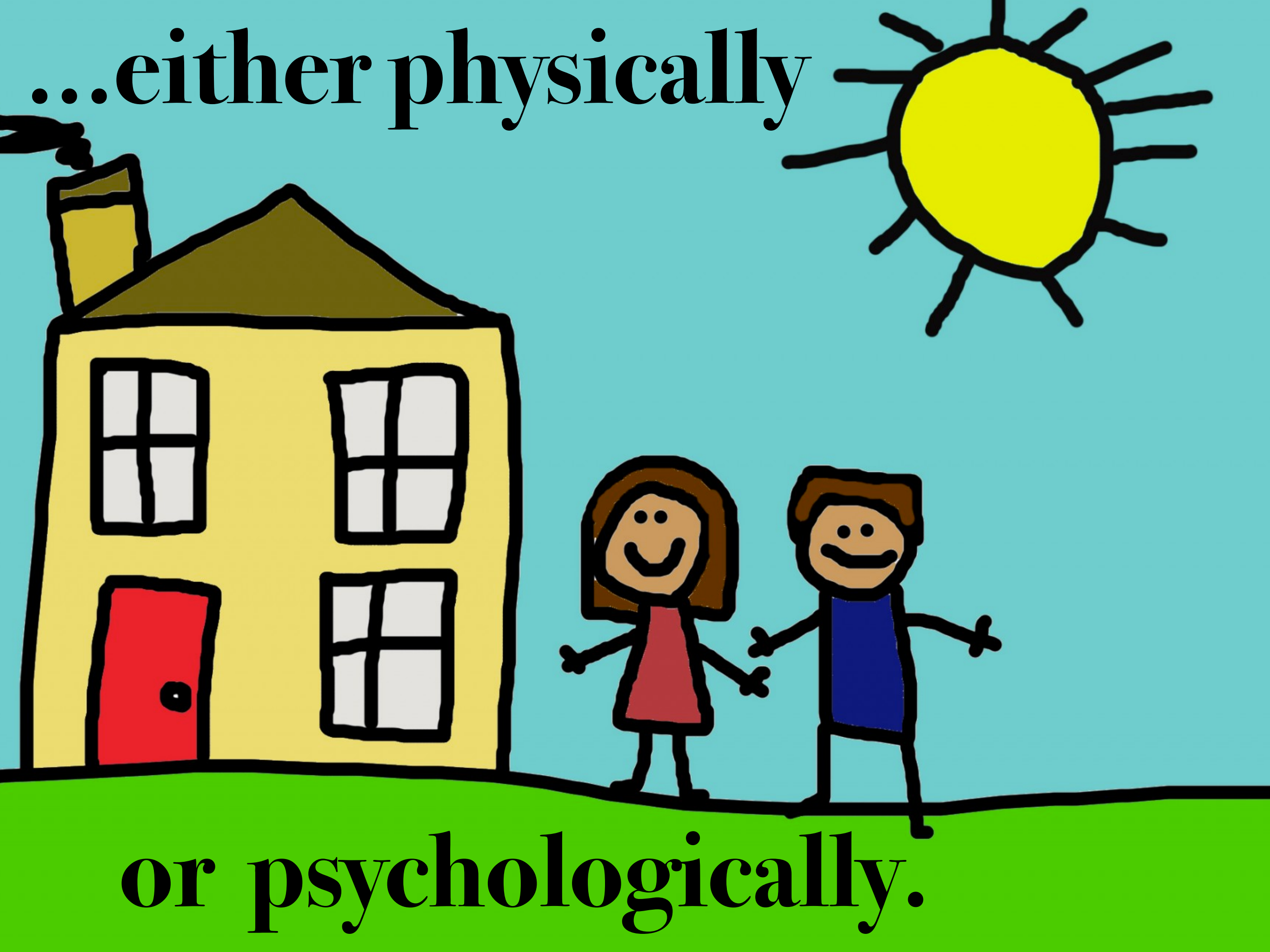


f The stage in which a baby learns through integrating sensory input and physical actions

Egocentrism



Egocentrism is the inability to take another person's perspective or point of view, ...

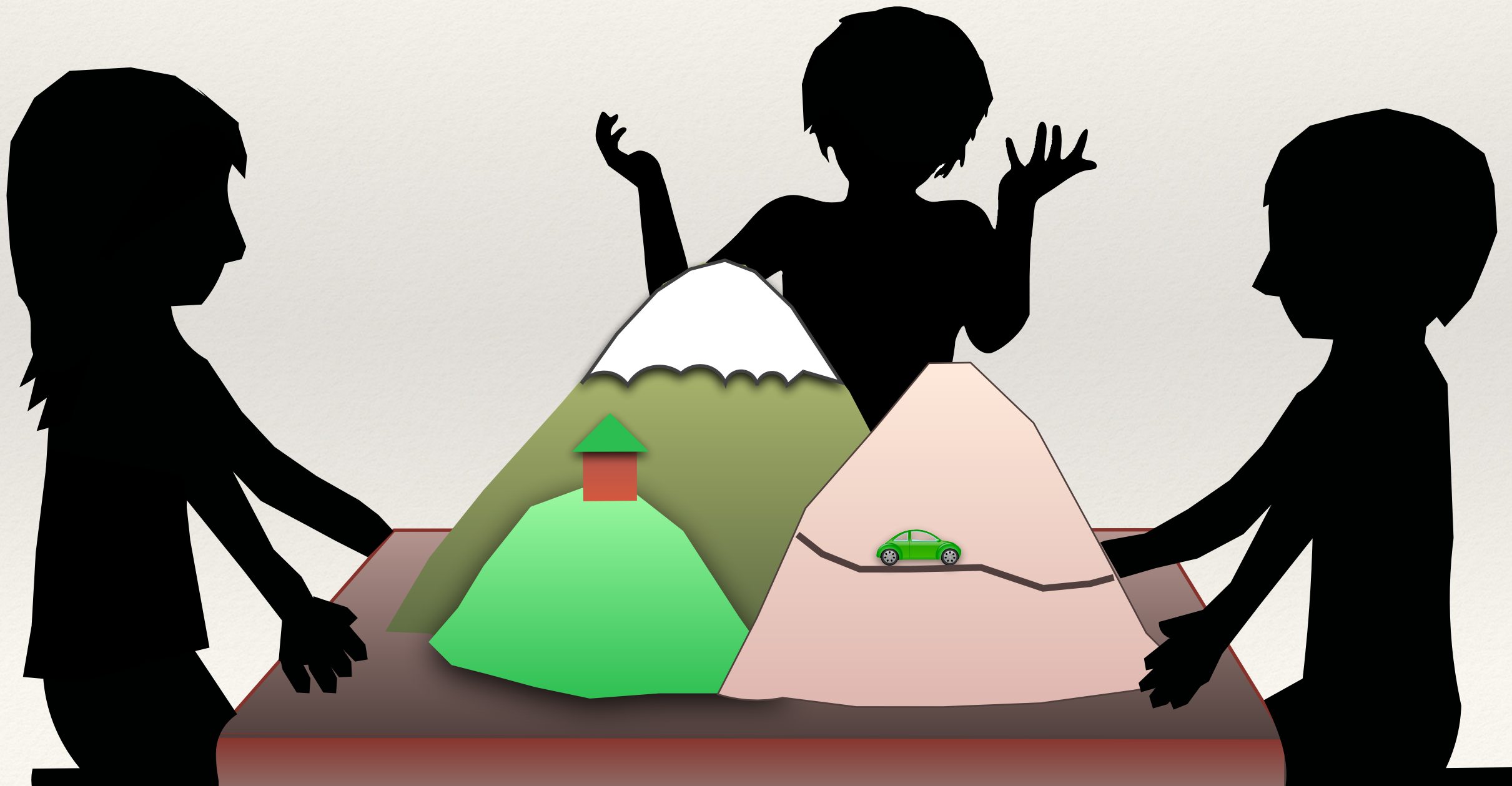


...either physically

or psychologically.

Physically...

A child in the preoperational stage finds it difficult or impossible to visualise a scene from another's viewpoint...



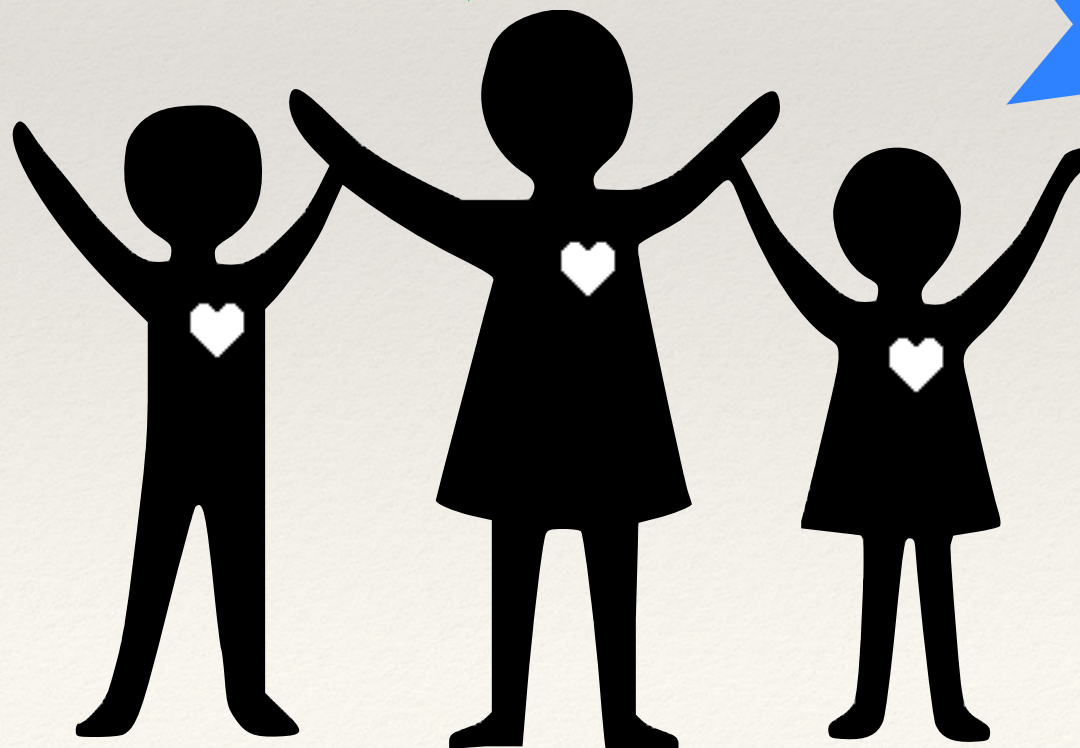
Psychologically...

...or imagine the wishes, needs or thoughts of another person.

Mum would like a train set for her birthday.

I know where Mum put the biscuits so my brother must know too.

My daddy is upset. I'm going to give him my teddy.



A Brief Evaluative Comment on Egocentrism

Keep in mind that many researchers have questioned Piaget's ideas about egocentrism. Modern studies of "theory of mind", for instance, indicate that most children acquire this concept between the ages of 3 and 6. This suggests, as many critics of Piaget have pointed out, that he may have underestimated younger children's ability in this area.





- The video snippet you are about to watch explores the concept of “theory of mind”.
- “Theory of mind” focuses on the **psychological skill** of being able to understand that other people think, know and perceive differently from oneself.
- This concept is therefore not entirely synonymous with Piaget’s concept of egocentrism, which refers also to taking another’s physical and spatial viewpoint.

The children watch as the experimenter replaces coins in a piggybank with marbles. The experimenter then asks, **“What would someone else think was in the piggybank?”**

Younger children tend to reply: **“Marbles!”**.

Older children (sometimes as young as 4) reply:
“Money!”.





[Watch this video on Youtube at this link \(10 seconds to 4 minutes\)](#)

Very Brief Evaluation of the First Two Stages

- Hundreds of studies have been carried out on aspects of Piaget's theory.
- Many have indicated that children in the first two stages tend to achieve many cognitive milestones earlier than Piaget believed.
- Despite these queries, the concepts in Piaget's theory have shaped educational philosophy for decades and continue to be applied in many educational settings.