



Acquiring a Theory of Mind

A stage in development?

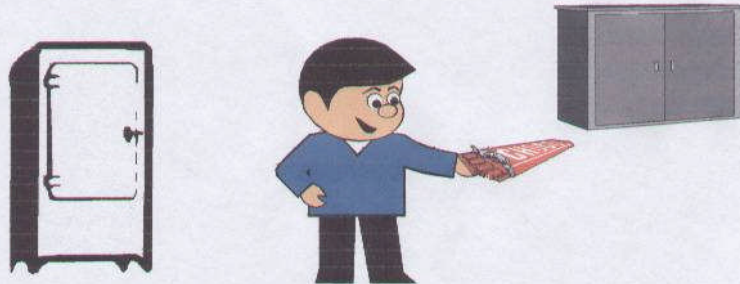
Intuitive psychology and false beliefs



- Being able to connect with other people
 - Empathy, communication, deception, morality
- The value of false belief
 - Methodological
 - Functional... communication and deception
- Tests of false belief... How do we devise a test that is capable of revealing something profound, that is simple enough to present to a young child?
 - Unexpected transfer test (Wimmer & Perner (1983))
 - Deceptive box test (Perner et al, 1987)

Unexpected transfer test

Scene 1: Maxi puts his chocolate in the cupboard



While Maxi is out playing, his Mum takes the chocolate from the cupboard and grates some of it into a cake.

Maxi is returning from play feeling hungry. He wants his chocolate.

Scene 2: Later, Mum moves it to the fridge



Where will Maxi look for his chocolate?

Where did Maxi put his chocolate?

Where did Mum put his chocolate?

Deceptive box test

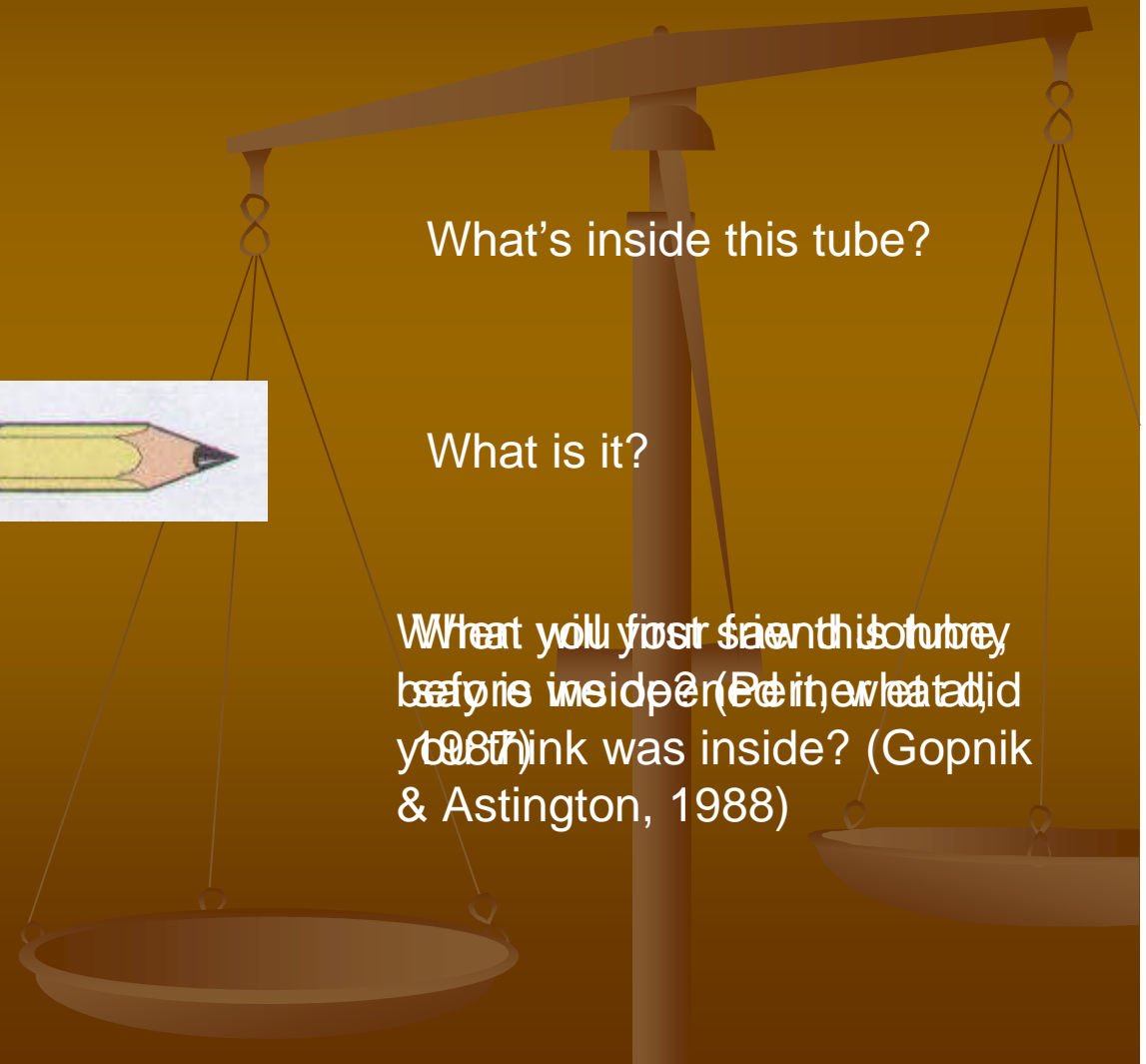
Gets round criticisms that children had difficulty with story comprehension



What's inside this tube?

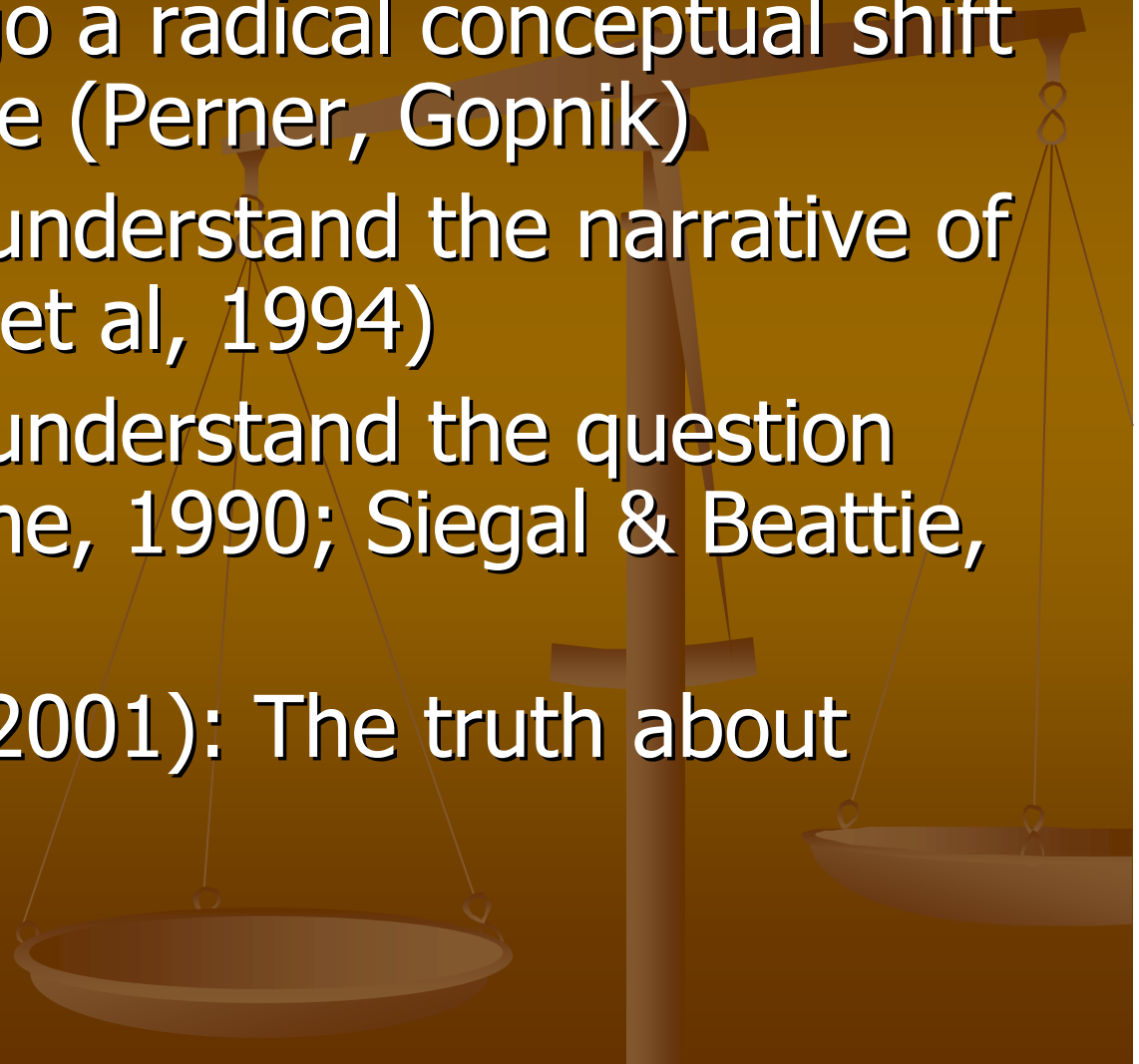
What is it?

What you first see is not what you get
before inside (Perit, what did you think was inside?) (Gopnik & Astington, 1988)



Conclusions based on age-trends

- Children undergo a radical conceptual shift at 4 years of age (Perner, Gopnik)
- 3-yr-olds don't understand the narrative of the task (Lewis et al, 1994)
- 3-yr-olds don't understand the question (Lewis & Osborne, 1990; Siegal & Beattie, 1991)
- Wellman et al (2001): The truth about false belief!



Why is false belief difficult for a 3 yr old?

Because of a conceptual constraint???

State Change (Wimmer & Hartl, 1991)



What's inside this tube?

What is it?

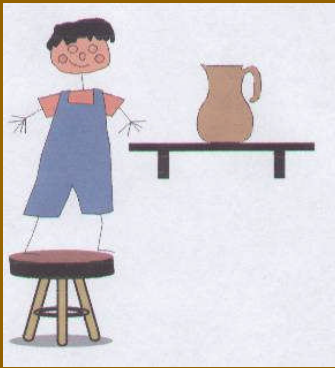
I've taken away the Smarties and put a pencil in the tube

When you first saw this tube, before we opened it, what did you think was inside?

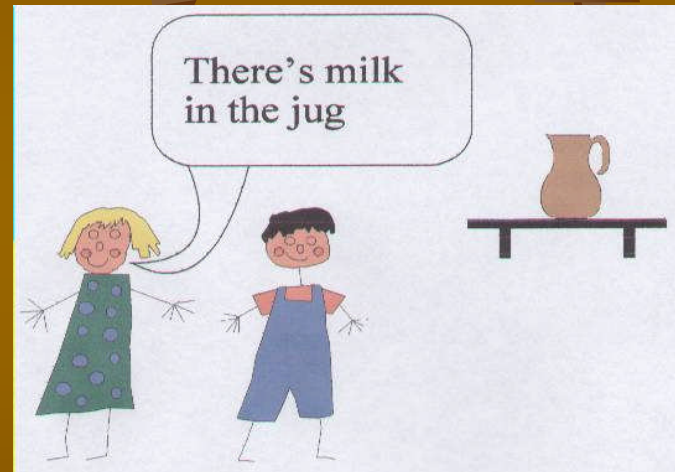
Do adults sometimes have difficulty separating their own belief from other people's

Mitchell et al (1996)

Kev stands on a chair and sees juice in this jug



He leaves the room for about an hour. He returns with Rebecca, and she announces...



Condition 1: No extra information available to observing participant

Condition 2: Participant has the privileged information that Rebecca replaced the juice with milk!

Children with autism have difficulty with false belief

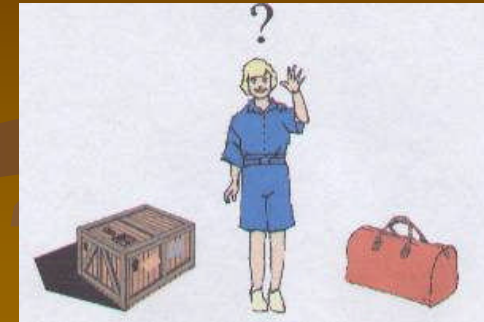
Baron-Cohen et al (1985)



Sally puts her ball in the box and then leaves



While Sally is away, Anne puts the ball in the bag



Sally returns for her ball. Where will she look?

75% of children with autism gave an incorrect judgment

Developmental delay could not explain the high rate of failure.

Maybe autism entails an impaired theory of mind