

# "What's going on in there?"

## Means and challenges of doing research with and about kids

Tuesday 24<sup>th</sup> April 9:00 – 16:00

### Abstracts

#### **Ecological learning: How children adapt their active learning strategies to achieve efficiency**

How do young children learn so much about the world so efficiently? This talk presents the results of recent studies investigating theoretically and empirically how children actively seek information in their physical and social environments as evidence to test and dynamically revise their hypotheses and theories over time. In particular, it will focus on how children adapt their active learning strategies, such as question-asking and explorative behavior, in response to the task characteristics, to the statistical structure of the hypothesis space, and to the feedback received. Such adaptiveness and flexibility is crucial to learn in situations of uncertainty, when testing alternative hypotheses, making decisions, drawing causal inferences and solving categorisation tasks.

[Azzurra Ruggeri](#), Max Planck Research Group iSearch. Azzurra is interested in how children and adults actively search for information when making decisions, drawing causal inferences and solving categorization tasks. She has closely worked with children documenting how they adapt questions to achieve efficient search!

#### **Studying children's imagination and problem solving experimentally**

Children appear to be imaginative and creative in their everyday lives, perhaps more so than adults. However, experimental studies requiring children to direct this imagination towards the real world, for example to solve physical puzzles, can reveal difficulties.

I will present a series of experimental studies in which (relatively) large numbers of children are tested on short, simple puzzles. An important aspect of these tasks is that they make low verbal or reflective demands and I will discuss the interplay between researchers designing studies for human children and non-human animals.

These studies advance our understanding of the cognitive processes involved in innovation. I will also include new studies that emphasise the importance of the social context for children's performance. Overall, I will argue that experiments are an important tool for understanding children's minds and that sometimes the results should lead us to change our interpretations of everyday behaviour. However, it is essential that experiments are informed by understanding of children's real life experiences.

[Sarah Beck](#), School of psychology at University of Birmingham. Sarah examines children's and adults' thinking about time and knowledge. She is interested in how children become able to speculate about events in the past and future and how they handle uncertainty, and how adults' apparently sophisticated thinking in these areas is often irrational.

## **Multimodal Methodologies for Researching Young Children's Play**

Children's playful learning is often expressed in subtle ways, through silent actions and interactions as well as through language. In order to explore the complexity of play, apt theories and research methods are necessary for attending to the many ways children make meaning. A multimodal perspective recognises that play involves multiple modes such as movement, gesture, facial expression and use of objects in addition to language, yet such an approach presents challenges for researchers. A particular issue is developing forms of transcription that account for multiple modes in fine-grained detail, with the conventions developed for transcribing language proving insufficient.

This presentation will share insights from an ethnographic case study carried out in a nursery school in England using video-based observations of child-initiated play. It will present a multimodal perspective in which multimodal transcription acts as an analytic device to bring 'invisible' aspects of play to the fore, highlighting ways in which children's play is complex, layered, transformative, creative and agentic. In this way, multimodal methods are positioned as tools for recognising and valuing meaning-making which may typically be overlooked in research methodology, educational theory and practice.

Dr. [Kate Cowan](#) is a Research Associate at UCL Institute of Education, London. Her research covers areas including early childhood education, play, digital technologies and Reggio Emilia. Kate's doctoral research was part of the [MODE](#) project which developed multimodal methodologies for researching digital data, including the ethics of video-based research with young children. Before joining UCL IOE, Kate worked as a nursery teacher and she remains committed to connecting research and practice. In addition to academic publication in books and papers, Kate has written for early years teachers, students and the general public.

## **Measuring cooperative decision-making in children**

My work focuses on the development of cooperative problem solving, with a focus on how children learn rules governing fairness in their respective societies and how they begin to comply with and even enforce fairness rules in their early years. Many of the studies I have designed focus on the contexts in which children are willing to sacrifice personal rewards to achieve fair outcomes. To do this, my studies often involve adapting existing economic games from the adult literature for use with children. In my presentation, I will review some of the designs that have (and have not) proven to be successful in assessing children's cooperative behavior. In reviewing these designs and the decision-making behind them, I will focus on four main methodological challenges: (1) how to make tasks engaging and appropriate for children across cultures and across ages; (2) how to ensure that children understand different economic games; (3) how to create multiplayer games and (4) how to reconcile the tradeoff between experimental control and social validity when working with children.

[Katherine McAuliffe](#), Department of Psychology at Boston College. Katherine is studying the development and evolution of cooperation in humans, with a special focus on how children acquire and enforce fairness norms by means of lab experiments mostly. Katherine has vast experience with how to translate experimental designs created for adults to studying kids and what challenges might still occur in the process.