



Webinar & Research Seminar - April 29th, 2021

- Only by webconference -

1pm – 3pm | Session 1 :

Cognitive and Social variables modulating food rejection (or acceptance) in children.

1pm – 1.15pm: Jérémie Lafraire, Institut Paul Bocuse Research Center

Welcoming



Jérémie Lafraire is a PhD in Cognitive Science (UPMC, Sorbonne Universités) and has been graduated from the Ecole Normale Supérieure de Paris (Ulm). He joined the Research Center of the Paul Bocuse Institute in 2014.

Jérémie Lafraire is in charge of the research group in cognitive science applied to food (Food Cognition Group: 4 PHD and 1 postdoc). Jérémie Lafraire and his group are focusing on the cognitive mechanisms underpinning complex facets of food perception and behavior, in particular the different perceptual and conceptual representations of food.

1.15pm – 2pm: Abigail Pickard (IPBR/LEAD/UBFC) “Spill the Beans”:

“ The development of conceptual knowledge about food and its relationship with food rejections tendencies in young children “



Concepts encompass much of our real-world knowledge and allow us to understand what properties objects have and what they are. There are many different knowledge structures available in the food domain, such as taxonomic, script and thematic, which can arguably serve important roles in guiding reasoning and behavior. Whilst taxonomic structures are heavily emphasized in guiding food decisions (i.e. five fruits and vegetables a day), individuals spend much time organizing their food experiences by identifying the temporal, functional, or spatial relations, such as expecting cereal at breakfast or soup to be served with a spoon. For children who are only mastering such conceptual structures, it is important to determine which conceptual structures guide their understanding and appropriate interaction with food. This research disentangles conceptual structures in the food domain by investigating the specific concepts available to children, as well as their ability to appropriately apply said concepts in the food domain. In the first two studies, 3-6-year-old children (48 US children and 129 French children, respectively) participated in a forced-choice triad task depicting four common knowledge structures within the food context: functional (e.g. soup-spoon), thematic (e.g. bread-butter), meal scripts (e.g. cereal-toast), and event scripts (e.g. Halloween-candy). Results revealed that age was a significant predictor in global food knowledge, but script understanding is acquired later than thematic understanding. Using framed contextual scenarios, study 3 investigated the availability of thematic versus script concepts in 79 children aged 4-7 years old. The research witnessed that appropriate application for script structures in the food domain occurs significantly later than that for thematic concepts. This research concludes that although children may recognize thematic and script structures at an early age, their appropriate application of these concepts develops significantly later.

Abigail Pickard is a PhD student in cognitive science in Bourgogne Franche-Comté University - LEAD (Laboratory of Learning and Development Study) and Institut Paul Bocuse Research Center. She is an early stage researcher funded by the Edulia EU ITN-MSC project n°764985.

2pm – 2.45pm: Kaat Philippe (INRAE, CSGA)

" Are parental feeding practices gendered? Links between maternal and paternal feeding practices and child eating behaviors. "



The preschool period is characterized by a peak in food rejections in children and by a deterioration of their ability to self-regulate food intake under the influence of the external environment (e.g., "portion size effect"). Knowing that eating habits established during early years contribute to the development of subsequent eating habits, it is important to promote healthy eating habits in children from a young age. It is well documented that parents and their feeding practices and styles play a key role in shaping children's eating patterns and preferences. However, past research has mainly focused on the links between child eating behaviors and maternal feeding practices. The impact of fathers and of concordant/discordant feeding practices within families has received much less attention. To fill this gap, Kaat Philippe and her colleagues conducted a study with both parents of 105 French children aged 2-6 years. Mothers and fathers independently completed a survey with items from validated questionnaires. Results showed that fathers and mothers perceived their child's eating behaviors in similar ways, despite mothers taking significantly more meals with their child than fathers. Fathers reported using significantly more pressure to eat and food as reward, but reported lower levels of "family meal setting" than mothers. Regression analyses showed that both maternal and paternal practices and styles were predictors for child eating behaviors. One interaction effect was observed: in households where both parents used higher levels of pressure to eat, the child showed a significantly lower food enjoyment than expected if the effects were additive. These findings underline the importance of studying the individual role of each parent in child feeding research and that both parents within families should avoid using coercive practices. This could finally stimulate new interventions and recommendations addressed to both parents.

Kaat Philippe is a PhD student in psychology at INRAE, at the Center for Taste and Feeding Behavior (CSGA) in Dijon. She is an early stage researcher funded by the Edulia EU ITN-MSc project n°764985.

2.45pm – Break

3pm – 5pm | Session 2 : Food transformation and food acceptance

3pm – 3.30pm: Damien Foinant (LEAD/IPBR/UBFC)

" Fatal errors in the food domain: children's categorization performance and strategy depend on both food processing and neophobic dispositions. "



Distinguishing between foods and nonfoods is crucial for survival. If children need to consume new and diverse food sources to ensure normal and healthy development, novel foods may be inedible, even toxic and a single mistake in this search for variety can prove to be fatal. We tested preschool children in a food versus nonfood categorization task. More precisely, we studied the influence of edibility cues such as food processing (whole versus sliced items) on categorization performance and strategy. We also correlated children's categorization performance and strategy with the intensity of their food rejection dispositions (namely food neophobia and pickiness). 137 children aged 4-6 years were asked to sort color photographs of foods and nonfoods as edible or inedible. Results revealed that food processing features (cutting, slicing) afforded edibility, leading to potentially hazardous incorrect categorization. We also found that children's categorization performance was negatively correlated with their food rejection scores. Moreover, children with high food rejection scores displayed a more conservative categorization strategy (i.e., categorizing foods as inedible) than children with lower food rejection scores, which could protect them from dangerous errors (i.e., incorrectly categorizing nonfoods as edible).

Damien Foinant is a PhD student in cognitive science in Bourgogne Franche-Comté University - LEAD (Laboratory of Learning and Development Study) and Institut Paul Bocuse Research Center.

« I am interested in food cognition and behaviors. In particular, my research investigates how young children develop mental representations of food and which dimensions are relevant to their food concept(s). I also study the interplay of cognitive (executive functions) and behavioral (food rejections) interindividual differences in children's food conceptual development. »

3.30pm – 4.30pm: Carol Coricelli

(University of Western Ontario, London, Canada)

" Cook it if you can. Disentangling the brain representations of unprocessed and processed foods. "



Food is fuel for life. Our ancestors domesticated fire and used it to cook foods, this changed human evolution and radically changed our brain. The environment in which we evolved was scarce in food and full of dangers, very far from the one in which we live today, however the brain mechanisms we have inherited have not changed. By simply visually inspecting food stimuli, our brain extracts information such as edibility or caloric content, and as recently shown also the level of processing of foods. The degree of food processing is a relevant dimension for humans because food processing procedures are ubiquitously applied in different cultures. Moreover, processing often reduces the toxicity of foods and signals previous human intervention, which could act as cues of food safety. Results of behavioral and neuroimaging studies conducted by Carol Coricelli will be presented.

Carol Coricelli is currently a Postdoctoral Fellow at the University of Western Ontario (London, Canada) and an Adjunct Lecturer at the University of Gastronomic Sciences (Bra, Italy). During her PhD in Cognitive Neuroscience at SISSA (Trieste, Italy) she started to investigate the neural basis of visual food perception, studies she continues to carry on today.

4.30pm – 5pm : Questions and Exchanges

- Instructions to follow to attend the Webinar & Seminar -

In this exceptional period of confinement, the Institut Paul Bocuse Research Center's team would be please to count you among its participants to its Research Seminar, which will take place only by webconference.

To register to the Research Seminar conference on April 29th, 2021 for free, and receive the login link, please complete this [form](#).

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