Joint event:

6th SAPERE Scientific & Dissemination Symposium

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Institut Paul Bocuse scientific symposium and professional workshop, Lyon, France

27th, 28th & 29th of Sept. 2017

PRE-CONFERENCE WORKSHOP & JOINT INTERNATIONAL SYMPOSIUM– program

27th, afternoon pre-conference workshop

(Room: *Laboratoire des services*, access details and map below)

1:15 Lunch Nomos restaurant

3:00 pm

How to combine the scientific approach and the culinary expertise to foster vegetable acceptance in young children?

J. Lafraire researcher at Institut Paul Bocuse and Florent Boivin (MOF), chef at Institut Paul Bocuse will conduct an *in situ* testing with preschoolers and participants (experimental tea time and intergenerational tasting session).

28th, Scientific joint symposium: Social and cognitive factors influencing food behavior and perception in young children

(Room: *Laboratoire des services*, access details and map below)

PROGRAM

9:00 Welcome coffee – hanging of the posters – late registration

Welcoming and Introduction Agnes Giboreau & Jérémie Lafraire (IPBR)

MORNING SESSION 9:30 am – 12:05

- Pr. Jackie Blissett (Coventry University), *The role of temperament in children's food acceptance*.

10:15

- Elizabeth Kim (University of California Irvine) How much are you having? Preschoolers' conformity to others' food portion selections using a computerized portion selection task

11:00

Coffee break & Posters

11:20

- Dr. Jérémie Lafraire (IPBR/IJN) *Food neophobia and the development of food concepts: toward an evidence based food education*

12:15 Lunch - Posters

AFTERNOON SESSION 1:45 pm – 6pm

- Pr. Monica Laureati (UNIMI), *Effectiveness of food educational interventions with children: the role of individual differences*

2:30

- Dr. Valérie Lengard (Nofima), *The role of parental influence and taste sensitivity on preferences for sweetness in pre-schoolers*

3:15

- Henna Jalkanen (University of Eastern Finland) *(tbc)*, Enjoyment of food and Food fussiness: relationships with physical activity and vegetable consumption in Finnish children aged 6-8 years, PANIC study

4:00

Coffee break & Posters

4:20

- Pr. Mari Sandell (Turku University), *Food education activities with Finnish Young people - case: NuHeViMa program*

5:05

- Dr. Anne Marie Olsen, (Copenhagen University) *Changing children's eating behaviour – a review of experimental research*

5:50

General Discussion – Conclusion – and acknowledgments Jérémie Lafraire

7:45 **Conference Diner at La Mère Brazier (Restaurant or Wine bar)**

Confirmed Speakers

Professor Jackie Blissett is a developmental psychologist with expertise in feeding and eating behaviour from the earliest stages of life. She has over 80 peer reviewed publications, most examining eating behaviour at both ends of the continuum – from fussy eating and feeding problems through to obesity and emotional overeating. Recent work has included identification of the best strategies to encourage toddlers to try new foods, and the identification of the long term effects of parents' use of food as a reward on children's emotional eating.

Dr. Valérie Lengard Almli is a Research Scientist at Nofima, where she has been working since 2008. Her research areas are consumer behavior and sensory science, with a main focus on the consumer. Special interests include the role of extrinsic factors on consumers' product acceptance and food choice, children's learning mechanisms towards a healthy and varied diet, consumer testing methodologies and consumer-driven innovation processes.

Dr. Jérémie Lafraire is a research scientist in cognitive science at The Centre for Food and Hospitality Research, Institut Paul Bocuse and associate researcher at Institut Jean Nicod (Paris). His current research interests dwell in the cognitive underpinnings of food behavior, more specifically he is interested in food concepts and categories and on the multisensory perception of flavor.

Since 2012, Dr. Monica Laureati is assistant professor in Sensory and Consumer Science at the Department of Food, Environmental and Nutritional Sciences of the University of Milan. Monica completed her Master thesis in Food Science and Technology at the University of Milan where she also earned her PhD in Food Biotechnology. Since 2015, she coordinates the activities of the Children working group of the European Sensory Science Society. She is member of the editorial board of Food Quality and Preference and co-authored 38 peer-reviewed articles and 2 book chapters in the field of sensory and consumer science. Her main research interests are individual differences in taste perception and preference, children eating behavior, perceptive and behavioral determinants of obesity.

Dr. Mari Sandell is associate professor in sensory perception and deputy director of Functional Foods Forum at University of Turku and Faculty of Medicine. Among other things, Mari and her team Senses and Food are active developers of Finnish food chain and food education. Her special research interests include flavour, multisensory perception and individual differences.

Dr. Anne Marie Olsen is associate professor at the Faculty of Science, Department of Food Science in the section for Sensory and Consumer research. She is conducting various types of research related to human eating behavior in the area of sensory and consumer research, primarily focusing on children. Main topics are different intervention strategies to direct current food preferences in a healthier direction, and investigating how contextual factors influence both our food choices as well as amounts consumed.

Elizabeth Kim is a doctoral candidate from University of California Irvine who is currently attached to Agency for Science Technology and Research (A*STAR) in Singapore as a student researcher. Her research looks at how preschoolers make food-based decisions under social pressure by peers. Her broader research interests include how preschoolers deal with positive and negative social pressure across various domains (ex. perceptual, moral, and food judgments) and various cultures (individualistic v. collectivistic societies).

Henna Jalkanen works as a dietician and a PhD student in Physical Activity and Nutrition in Children –study (PANIC), in University of Eastern Finland, Kuopio. Her professional area is eating behaviour in children and she has studied e.g. the background determinants of eating behaviour and how eating behaviour is associated with food consumption.

29th Morning session on the ongoing activities of the Sapere community

9:30 Round table and welcoming new members

10:30 Ongoing Sapere projects

11:00 Next annual meeting

11:30 Lunch

Fees and registration

Early registration recommended (limited number of participants)
http://recherche.institutpaulbocuse.com/en/events/
Queries at: jeremie.lafraire@institutpaulbocuse.com

The fees cover registration, breaks, lunch, and a diner. NB: **diner at la Mère Brazier** is now sold out, but covers are still available at la Mère Brazier Wine bar at the same location.**

For non Sapere members:
Workshop+ Symposium: 180 **€**
Symposium only: 100 **€**

For **Sapere members** & students:
Workshop+ Symposium: 90**€**
Symposium: 50 **€**

Sapere membership 2017: 40 €

Membership fee AISBL SAPERE International during the year 2017.

- The Board of Directors has proposed to the Assembly the contributions amounts 2017

€ 40.00 for " supporting members " (individuals).The membership gives access to the international SAPERE network and participation in the Scientific network meetings.

Thank you for the payment on the following account:

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For an invoice: please ask to J. Leignel -mail jll2001fr@yahoo.fr after payment

Conference Diner at La Mère Brazier**

(now sold out, but covers are still available at La Mère Brazier Wine Bar)

This year the conference diner will take place at La Mère Brazier** a legendary two stars restaurant in Lyon. This restaurant was created in 1921 by Eugénie Brazier, who was then 26 years old and became famous thanks to a traditional gastronomic cooking. First woman to be rewarded twice by 3 stars in the Michelin Guide in 1933, Eugenie Brazier founded the current line of top French chefs in Lyon including her student Paul Bocuse himself!

Now, the chef Mathieu Vianney is at the head of this legendary institution and like Eugénie Brazier in the past, Mathieu Viannay cooks products of an irreproachable quality in a simple though subtle manner.

More on La Mère Brazier in the pdf presentation attached.

Accommodation

[each participant manages his/her accommodation] List of possible hotels:

- Campanile Ecully http://www.campanile.fr/ecully
- Cool and Bed, 32 quai Arloing 69009 Lyon. Tél: 04 26 18 05 28 http://www.coolandbed.com
- Resid'Hôtel Lyon Lamartine : http://www.residhotel.com/lyon-lamartine.html
- Holiday Inn Lyon Vaise : http://www.holidayinn.com/hotels/fr/fr/lyon/lysvv/hoteldetail
- Ibis Lyon Perrache http://www.ibishotel.com/fr/hotel-2751-ibis-lyon-centre-perrache/index.shtml
- Hôtel Le Royal, www.mgallery.com/Lyon *(Hotel school of the Institut Paul Bocuse - ask us for partnership fare)*

Posters:

- **Taste class with Sapere method for 2&3 yrs. children at nursery school in Japan**

Junichiro Somei[1)], Yaeko Kawaguchi[2)]
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State of the art: Japanese government has issued a new guideline for nursery school on March 2017. The guideline reinforced nursery care for infant and children under three years old and importance of education aspect. The guideline exemplified 1)to enjoy eating wide variety of food, 2)to enrich their five senses through experiences, 3)to express their own thought by developing verbal communication ability, etc. independently.
Problem statement: A comprehensive method is needed for nursery school.
Research methodology and approach: This study is ongoing at the nursery school in Kyoto, Japan. Participants are 18 children aged 2 and 23 children aged 3. The study includes a series of lessons (6 lessons) using sapere method, and are planned from May 2017 to October 2017 once a month. Parents were asked about children's eating habits by questionnaire before the study started and they will answer again after the study finished. The nursery childcare workers are also asked their opinion and thoughts, and to record children's voices and changes after each lessons.
Preliminary or intermediate results: 27 parents answered questionnaire so far.
Children are enjoying the class and getting familiar with how to concentrate on using their own five sensors and to acquire verbal expressions.
Conclusion: Not like single lesson, a series of lessons are very effective to change children's attitude gradually and to have childcare workers recognize the value of taste class for children.

- **Food neophobia and its association with intake of fish and other selected foods in a sample of 2-year-old's.**

Helland SH, Bere E, Bjørnarå HB, Øverby NC.
Department of Public Health, Sport and Nutrition, Faculty of Health and Sport Sciences, University of Agder, Norway.
Background
Food neophobia prevents toddlers from accepting healthy foods such as fish and vegetables, which are important for child development and health. Eating habits established between ages 2 and 3 years normally track into adulthood but there are few studies addressing food neophobia in this age group.
Problem Statement
This cross-sectional study investigated the relationship between the level of food neophobia and toddlers' intake of fish, meat, berries, fruit, vegetables, and sweet and salty snacks.
Methods
Parents of 505 Norwegian toddlers completed a questionnaire assessing food neophobia in their toddlers (mean age 28 months, SD ± 3.5), and intake of various foods. Associations between Children's Food Neophobia Scale (CFNS score) and food frequency were examined using hierarchical multiple regression models, adjusting for significant covariates.
Results
Toddlers with higher CFNS scores had less frequent intake of vegetables ($\beta = -0.28$, $p < 0.001$), berries ($\beta = -0.17$, $p = 0.002$), fruits ($\beta = -0.16$, $p < 0.001$), and fish ($\beta = -0.15$, $p = 0.001$). No significant associations were found for CFNS score and intakes of meat or of sweet and fatty snacks.
Conclusions
Food neophobia in toddlers is associated with lower diet quality, and indicate a need for intervention studies.

- ***How much are you having?: Preschoolers' conformity to others' food portion selections using a computerized portion selection task***

Authors: Elizabeth B. Kim, Bobby Cheon, Chuansheng Chen
Presenter: Elizabeth B. Kim
Children have been found to rely on adults, peers, and even strangers when it comes to determining food choice and food intake. Social modeling of food portion selection, however, has been less thoroughly examined. It is important to understand this better because even small changes in food portions can have positive health benefits. The present study aimed to understand preschoolers' conformity to healthy/unhealthy food portion selections by remote confederates using a conformity paradigm tested previously across different domains (moral, social, perceptual) in my Ph.D. research. Based on evidence of children's sensitivity to social pressure, we expected significant conformity effects in both healthy and unhealthy food portion selections. This study is the first of its kind to use a computerized portion selection task (PST) on preschool age children, showing high-resolution images of familiar foods with equicaloric steps that allows for detailed information on changes in portion selection. 75 3-6 year old Singaporean children made food (healthy/unhealthy) portion selections both independently and after having viewed confederates choose either high portion of unhealthy foods and low portions of healthy foods (unhealthy condition) or high portions of healthy foods and low portions of unhealthy foods (healthy condition). PST was found to be effective in influencing children to make healthier food portion selections. An interaction was found between condition and food type ($p < .001$). In unhealthy condition, children did not change conformity to healthy foods. In

healthy condition, children increased conformity to healthy foods (by 60 calories). In sum, children can resist peer influence on unhealthy food portions. Preliminary findings support previous findings showing peer groups as key social reference figures for food choice, and suggest that children at this age may already know what is healthy/unhealthy for them. This task could help inform intervention methods for using remote peers to promote healthier eating.

- **SENSORY-BASED FOOD EDUCATION IN EARLY CHILDHOOD EDUCATION AND CARE, AND CHILDREN´S FRUIT&VEGETABLE CHOICES**

Kähkönen Kaisa
Registered dietitian, PhD student
Department of Public Health and Clinical Nutrition, University of Eastern Finland
Abstract for poster
Objective: To investigate an association between sensory-based food education implemented in early childhood education and care (ECEC) centers and children's willingness to choose and eat vegetables, berries and fruit, and whether mother´s education level and children´s food neophobia moderated the linkage.
Design: The cross-sectional study involved six sensory-based food education ECEC centers and three reference ones. A snack buffet containing 11 vegetables, berries and fruit, served to assess children´s willingness to choose and eat them. Parents completed the Food Neophobia Scale questionnaire to assess these children´s food neophobia.
Setting: Sensory-based food education and reference ECEC centers in Finland.
Subjects: 3-5-year-old children in ECEC (N=130) and their parents.
Results: Sensory-based food education associated with children's willingness to choose and eat vegetables, berries and fruit. This association was stronger among children of mothers with a low education level. In the reference group, the average neophobia in our groups´ of children reduced willingness to choose vegetables, berries and fruit. Sensory-based food education group showed no similar tendency. Children´s individual food neophobia had a negative association with their willingness to choose and eat.
Conclusions: Child-oriented sensory-based food education seems a promising method to promote children´s adoption of vegetables, berries and fruit in their diets. In the future sensory food education studies, more focus should be placed on its effects at group level.

- ***Enjoyment of food* and *Food fussiness*: relationships with physical activity and vegetable consumption in Finnish children aged 6-8 years – PANIC study**

Henna Jalkanen*, Ursula Schwab, Aino-Maija Eloranta, Taisa, Venäläinen, Leila Karhunen, Sanna Kiiskinen, Timo Lakka, Virpi Lindi*
Institute of Biomedicine, School of Medicine, University of Eastern Finland, Kuopio, Finland
State of the Art: The early-life characteristics of eating behavior and associations of eating behaviour with food consumption have not been widely studied in children earlier.
Problem Statement and Contributions: We investigated eating behaviour and its relationships with early-life correlates, including physical activity and familial characteristics, and vegetable consumption in Finnish children.
Research Methodology and Approach: We studied a population sample of 243 girls and 258 boys aged 6–8 years. We assessed eating behaviour traits *Enjoyment of food* and *Food fussiness* using the Children's Eating Behaviour Questionnaire, personal and familial characteristics, including physical activity and sedentary time, using questionnaires and food consumption by 4-day food record. The data were analysed using linear regression models adjusted for age and gender.
Results: Physical activity and non-screen-based sedentary time, such as writing, drawing, and listening to music, were directly associated with *Enjoyment of food* and inversely associated with *Food fussiness*. Screen-based sedentary time was inversely associated with *Enjoyment of food* and directly associated with *Food fussiness*. Sleep duration was directly associated with *Enjoyment of food* and inversely associated with *Food fussiness.* Number of siblings was directly associated with *Enjoyment of food* and inversely associated with *Food fussiness*. *Enjoyment of food* was directly and *Food fussiness* inversely associated with vegetable consumption.
Conclusions: A higher physical activity, a lower screen-based sedentary time and a longer sleep duration were associated with favourable eating behaviours, such as a higher *Enjoyment of food* and a lower *Food fussiness, which are related to the higher vegetable consumption*. These results can be utilized in improving healthy eating behaviours since childhood.
Keywords: Eating behaviour, determinants, physical activity, children, The PANIC Study.

- **Structured sorting using photographs: a useful tool for better understanding of the primary schoolchildren´s perceptions of the healthiness of school lunch**

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Childhood obesity is considered one of the most serious public health challenges of the 21st century (WHO, 2017). There is no single cause and the solution involves interventions in the family, education, business, health, employment and community areas. The aim of this work was to study the nutritional understanding and hedonic perception of school meals, various dishes from primary school canteen.

Three groups of children of 6-7 years, 8-9 years and 10-12 years were interviewed in a primary school. The test session involved two tasks, a "structured sorting task", where they had to sort 16 color photographs of dishes offered in the school canteen in 4 pre-determined groups. In the second task, the same pictures were rated for the overall liking with the use of 5-point hedonic smiley-scales and classify in healthy or unhealthy.

Regarding the sorting task, the results of the three age groups were very similar. All the groups showed a good knowledge of the nutritional value of the tested dished offered in the school canteen. However, some dishes were difficult for the groups of children of 6-7 years and 8-9 years. In this work, the structured sorting task was a useful tool for children to classify various dishes considering healthiness and hedonic perception at the same time.

These results could contribute to the implementation of prevention programs in which the students work on the importance of nutrition and healthy practices.

- **The recipe literacy concept - capturing important aspects of learning how to cook in school**

Albina Granberg: Department of food, nutrition and dietetics, Uppsala University and School of Learning and Environment, Kristianstad University; Viktoria Olsson: School of Learning and Environment, Kristianstad University; Ylva Mattsson Sydner: Department of Food, Nutrition and Dietetics, Uppsala University

Introduction

In Sweden, the school subject Home Economics (HE) is a potential context for children to learn how to cook and to master artefacts in the cooking practice. The learning process entails a number of events that can be coupled to the children themselves, to the teachers and to various learning tools, like the recipes.

Aim

The aim of this study is to investigate various aspects of the process that occur when children with mild intellectual disabilities (ID) learn how to cook in the subject of Home Economics.

Methods

Data was collected using two different methods; firstly, using an ethnographic inspired design, sixteen accompanying observations were implemented at lessons in HE. The observations were carried out in kitchen classroom settings where teaching and learning about cooking took place. The field notes were thematically analyzed.

Secondly, in total 22 qualitative interviews with HE teachers of students with mild ID were conducted. The transcripts were analyzed thematically using the sociocultural approach on learning and knowledge as a theoretical framework.

Result

The findings reveal both that recipes are central artefacts during the cooking lessons and that the students have various difficulties using the recipes. Regarding the teachers, it was found that the skills that they emphasized in relation to learning how to cook included mastering the language of cooking, measuring and following recipes.

Conclusion

The results provide an insight into cooking lessons in HE in schools, not only regarding the focus that teachers give to cooking skills, but also to how cooking skills can be understood on a theoretical level. Attention was drawn to the complex set of knowledge needed to be able to use and understand a recipe in order to learn how to cook. We therefore suggest that the knowledge needed to make use of a recipe can be conceptualized in the novel concept of recipe literacy.