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Alumnus interview: Sanne Riemsma

Hi Sanne! Thanks for doing this interview with us. Can you tell us something about your experience in the masters, what did you do and how did you like it?

Sure! I followed the behavioral neuroscience track and enjoyed the master a lot. My first internship was at the Behavioral Neuroscience lab at the Donders Institute in Nijmegen and included behavioral work with rats. My second internship was at the van Someren group at the NIN, where I helped with an fMRI study on emotional memory. In between the internships I did the Tesla Minor, and I graduated from the master in October 2016.

After graduating, you have worked as a teaching assistant and as an MR operator. How did you get into these jobs, and how was your experience there?

After graduating I tried to find work in interesting places while considering PhDs and other long term career options. The network I created during my master proved essential, and I found my MR assistance job at the Spinoza Centre before graduating. Working with the MR scanners on loads of different projects was great experience and the job was also good for networking, and I found my current job through Spinoza. In addition to the flexibel scanning work I took two teaching assistant jobs. At the UvA I taught an eye-tracking practical and I helped teach a psychophysiology analysis course at AUC. I found both these jobs through my network.

Currently, you work as a research assistant at the VU at the developmental psychology department. What project are you working on, and how is your day to day work?

The study I am currently working on is the SoConnect study (www.so-connect.net), a big longitudinal study investigating the development of social interactions in adolescents. We visit schools throughout the country to collect behavioral data from students in their first, second and third year of high school.

By Margot Morssinkhof

This month's alumnus interview is with Sanne Riemsma, who started the MBCS masters' in 2013. She graduated in 2016 and is currently working at the VU in a research project with development of adolescents.

A large group of these high school students also participated in the fMRI element of the study, so we can match behavioral outcomes to social brain development. My daily work is nicely varied and includes the organization of the data collection, testing and scanning students at the Spinoza Centre, visiting schools for behavioral data collection and all kinds of odd jobs to assist the PhD students and postdocs on the project. Later this year I might analyze some of the fMRI data and help publish our findings. Being able to combine the day to day work of data collection with some more challenging data analyses (and potentially some writing in the future) is in my opinion a good way to stay up to date in the field and keep my eyes open for new opportunities.

Do you have any tips for the current master students, certain courses or choices you were happy with or found helpful?

I did some student assistant jobs during the master that strengthened my network and provided job opportunities after graduation.

Getting to know researchers and postdocs is important since most PhD students I know had some previous experience with the researchers or in the lab they applied to. Follow the money, find out which labs have received grants and try to find out early whether labs are planning to hire more research assistants or PhD students in the future. Talk to fellow students that did internships in groups you would be interested in working in to find out whether you would fit in and how the lab functions. Take some time to find a fitting PhD position and in the meantime keep up with reading in the field and new techniques.

For some of the current master students, the job market is something really daunting and something still very far away. Do you have any tips for current master students who feel like they are not prepared for the 'real world' work?

It can be quite challenging. It helps to get to grips with a couple of techniques that are popular in your field of interest during internships. Cast a wide net, sign up for all job notifications on websites and research institutes and be proactive in approaching researchers. If job security and a great income is what you are after, consider moving from academia to industry. I have worked a variety of jobs since graduating, and am taking my sweet time to apply to fitting PhD positions or find an exciting job outside of academia. In the meantime I have gained many handy new experiences with neuroscientific techniques, learned a lot about how to run a study and set up the best experiments, made great connections and found out more about what I like to do and am good at.

That sounds like great advice. Sanne, good luck with the work on your current project and all the best! Thank you so much for sharing your work experiences and wisdom with us :).

Why you're special

By Linda Jolink

Empathy. Morality. Brain size. Blah-di-blah. Here are some fresh perspectives on the question 'What makes us human?'

1. Eating peppers

What separates humans from other animals is that we are the only animals that like tabasco, says psychologist Paul Bloom in his book How Pleasure Works: Why We Like What We Like (2010). Capsaicin, the substance that makes red chili peppers hot, is used in its pure form by researchers who want to study pain because it directly stimulates pain receptors in the skin and mucosa, giving the brain the impression that one's mouth is on fire. No wonder that every sensible animal avoids this vile stuff. But not humans: we happily stuff our mouths with spicy food, and sometimes even entire peppers. Paul Bloom suggests that humans do this because we developed the capacity to enjoy feelings like fear and anxiety, because we are smart enough to distinguish between actually dangerous and 'fake' fear-provoking situations (hence thrillseeking behavior like watching horror movies and bungee jumping). In accordance with this, research from prof. Paul Rozin (University of Pennsylvania) suggests that sensitivity for capsaicin barely differs between most pepper lovers and haters. In other words, pepper lovers experience just as much pain as pepper haters, but have developed some sort of sadomasochistic relationship with spicy food. However, there is also a more earthly explanation for our love of hot peppers: simply that it has a strong anti-bacterial power, making it a great preservative for cooked food.

Sources:
Peppers: https://bit.ly/2rSIDpv
Huh: https://bit.ly/1F60cFM
Sleep: https://bbc.in/1JZLTVn

Li Yongzhi, the man who eats 2,5 kilos of peppers every day.

2. Huh?

Okay, 'language' would be a pretty standard answer to the question what differentiates human beings from animals. But where is the distinction between language and animalistic primal sounds? Contrary to what your mum may say, by all means it's not marked by the sound 'huh'. In a PLOS One article from 2013, Mark Dingemanse and collegues provide evidence for the claims that Huh? is universal, and that it is a word. They show that 'Huh?' appears in the same form and with the same meaning (a sort of 'spoken question mark') in languages all over the world (although there are some cultural differences: not everyone pronounces the first 'h', for example, and Icelanders say the word with a falling intonation as this is their general way to pronounce questions). There is no animal equivalent to 'Huh?'. The word has to be learnt and children cannot use it until the average age of 2.5 years, contray to grunts or emotional cries. The universal use of 'Huh?' seems to be an example of convergent evolution: the idea that the same feature develops in unrelated organisms through similar selective pressures because it works so well. So the next time someone corrects you on not politely saying 'I beg your pardon?' you may point out to them that you're actually using an exotic marvel of human evolution.

3. Staying up late

If you've been to last year's Summer School, you may remember this one. At the symposium that took place on the last day, UCLA professor Jerry Siegel gave an interesting talk about sleep in hunter-gatherers. He has studied three hunter-gatherer tribes who lived in different places and climates. Among the noticable findings was that the hunter-gatherers slept less than people in Western society: only 6.4 hours per night at average. This may contradict what people may expect, namely that we get way too little sleep in modern society because we supposedly suffer from 'a constant social jet-lag' (staying up because we want to hang with our friends at night). Instead, the hunter-gatherers, who do not have any electricity or artificial light (except from tiny fires which give off no blue light) and do not understand the word 'insomnia' because no-one ever experiences it, get no more sleep than 7 hours a night. Therefore, "Staying up late is part of what makes us human", said prof. Siegel. If you look at other primates, they sleep much more than humans – up to 17 hours in night monkeys. Great apes seem to have better-quality (i.e., a higher percentage of REM) sleep than monkeys, but still not as good as humans. Of all primates, humans spend the highest proportion of their sleep in a REM state – almost 25% – which may be the reason that we need less sleep than apes. This in turn may be a result of the fact that we found safe places to sleep (similar to orang-utans, who build nests high up in the trees), so that we could afford to reach a deep state of sleeping. As a result of our short sleep time, we developed superior nightvision compared to apes. And to end the circle, this is what enables the modern hunter-gatherers to develop three things of crucial importance for humans in the evening: weapons (preparing poison arrows), food (cooking), and social bonding (storytelling around the fire).

OVERHEARD:

"And what you see is some serious activity going on in the areas of the brain known as BA47 and BA40 – both components of the Brodmann area"

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We'd like you to meet some people: This years' summer school lecturers

This year's ABC summer school will be all about Social Cognition and the Brain. From Monday 18 of June till Wednesday 27, we will receive morning masterclasses held by renowned experts on the field. Do you want to meet them? You will be surprised with the diversity of disciplines, approaches and research interests they will show us through!

The first day of the summer school will be opened by **Jan B. Engelman**, who will give us an introduction on the field of Social Cognition and Social Neuroscience. As an Associate Professor of Neuroeconomics from the UvA, Engelman studies the neural correlates of the emotional regulation of decision making. Trust and reciprocity are his particular research interests.
The aim of Engelman's most recent work: to investigate how the severity of major depressive disorder (MDD) affects risky economic decision-making. For this, he used functional magnetic resonance imaging to study the neural coding of losses and gains in un-medicated MDD patients.

On the following day, **Marijn van Wingerden** will teach us about social decision making in rats. Marijn is visiting from the Heinrich Heine University of Duesseldorf (DE), where he is the principal investigator of the Social Rodent Lab. To study social valuation in rodents, his team uses techniques ranging from neurobiological and pharmacological manipulations, to neuroeconomic analyses.
The aim of van Wingerden's most recent work: to investigate the roles of glucocorticoid and noradrenergic activation on social discounting, which is the decrease in generosity with increasing social distance.

On Wednesday, **Grit Hein** will be holding a lecture on the Neurobiology of Social Motives. As a Professor of Translational Social Neuroscience from Würzburg University (DE), Grit researches how social interactions shape human motivation, learning and behavior. Her focus is to translate this knowledge into the diagnosis and therapy of psychological disorders like anxiety.
The aim of Hein's most recent work: to examine the neuroanatomical basis of the differences in sensitivity to injustice inflicted on others, using voxel-based morphometry and Freesurfer image analysis suite.

Next day, Lasana Harris will be talking about the Neuroscience of Person Perception. Harris is a senior lecturer in Social Cognition from the University College London (UK), where he does research on the neural correlates of prejudice, dehumanization, anthropomorphism, social learning, social emotions, empathy, and punishment.
The aim of Harris's most recent work: to examine how adults categorize emotion in facial expressions, influenced by processing time, facial mimicry, emotion labels, and perceptual cues.

The Friday lecture will be given by **Mariska Kret** on Emotion Processing in Homo and Pan. Kret is an assistant professor of the Cognitive Psychology Unit of Leiden University who has studied social decision making both in humans and great apes. Her research spans emotion processing, pupil-mimicry and neurophysiology.
The aim of Kret's most recent work: To examine the relationship between pupil mimicry and trust in patients with a clinically diagnosed episode of a major depressive disorder.

To begin the second week, **Valeria Gazzola** will give as a lecture on the Social Neuroscience of Mirror Neurons. Gazzola is one of the heads of the social brain lab of the Netherlands institute of Neuroscience. Her lab focuses on understanding the causal relationship between social behavior and brain activity in areas involved in our understanding of the actions and sensations of others.
The aim of Gazzola's most recent work: to test the role of the somatosensory cortex during the estimation of the weight of a box lifted by other, using off-line transcranial magnetic continuous theta-burst stimulation before the task.

On Tuesday, the associate professor in Developmental and Educational Psychology, **Berna Güroglu**, will give us a lecture on the Adolescent Brain in the Social Context of Peer Relationships. At Leiden University, Güroglu has a research line in social and emotional brain development across childhood, adolescence, and young adulthood.
The aim of Güroglu's most recent work: to examine the neural correlates of prosocial and selfish behavior in young adults. She studied the interactions with real-life friends and disliked peers, using functional magnetic resonance imaging.

The last masterclass lecture will be held by **Philippe Tobler** on Social Learning and the Brain. Tobler is an Associate Professor of Neuroeconomics and Social Neuroscience from the University of Zurich (CH), whose interests are the neural basis of reward, learning, economic decision making and social behaviour. He is particularly focused in the dopaminergic midbrain, the striatum and the prefrontal cortex
The aim of Tobler's most recent work: To test if the pharmacological blockade of D2 receptors during risky decision making decreases risk aversion by augmenting the sensitivity to larger reward magnitudes.


Jan B. Engelman


Marijn van Wingerden


Grit Hein

COMIC

By Linda Jolink

EVENTS

Summer is approaching, and so are some new and promising events.

Symposium Social threats and cyber terrorism
When? June 2nd, 13:00 - 17:00
Where? Doelenzaal, Amsterdam centre
Our own Cognito board is organizing a symposium on Social threat and cyber terrorism, aimed at new insights from cognitive neurosicence. Speakers include Nicolas Castellon, who has a background in big data and cyber security, and Kees van den Bos, Social psychology and law researcher who looks into the causes and context of radicalisation. The topic is extremely relevant and interesting, so be sure to save the date!
Note: the board is still looking for some sweet brainies who want to help with catering, making sure everyone has something to drink and snack on and to help set up the borrel. Be sure to let them know if you're in to help!

Pitch To Win: the importance of public speaking skills
When? May 30th, 17:30-19:00
Where? Spui 25, Amsterdam
Elevator pitches, TED talks, selling yourself – public speaking is becoming an increasingly important skill. A programme celebrating the skill of publich speaking, and the release of the book 'Pitch to Win'. With: David Beckett and Else van Nieuwkerk.

Discussion night:
How can slums become catalysts for sustainable urban development?
When? May 28th, 20:00
Where? Pakhuis de Zwijger
Slums are often perceived as the undesired side effect of all too rapid urbanization. However, they can also be seen as catalysts for sustainable urban development instead. Because slums are in development, they can develop immediately in a sustainable and inclusive way, using the newest insights and technologies. We discuss the mutual benefit for slum dwellers and social entrepreneurs to collaborate towards sustainable change.
Note: Be sure to register in advance at the website of Pakhuis de Zwijger

AR: The Augmented Self
How will Augmented Reality extend notions of reality, identity and sense of self?
When? Wednesday June 20th, 20:00
Where? Pakhuis de Zwijger
The relationship between reality and identity is interconnected: a shift in one of them influences our perception of the other. Our sense of self is a multilayered and fluid state that is influenced by biological, cognitive, political, cultural, societal and situational factors. We will explore how immersive technologies – and Augmented Reality in particular – will extend our perception of reality and sense of self.

BIRTHDAYS

This May featured many brainy babies who celebrated their birthday:
Laura de Rooij on 9th of May
Lara Engelbert on the 2nd of May
Scott Isherwood on the 1st of May
Lucas Lumeij on the 24th of May
Sepideh Saadat on the 22nd of May
Margot Morssinkhof on the 12th of May
Mariana Duque on the 15 of May

Wanted: you!

Cognito is ran by the first-year and second-year students of the masters. *As some of the second-years will be graduating soon, most of the committees are looking or will be looking for some new members for next year!* The board is looking for members, as well as the newsletter committee. Also, you can join the yearbook committee and social committee next year too. Keep this in mind while you're away this summer, and join next September to keep Cognito fun and running!