



What makes us who we are?

Exploring how interactions between our bodies and the environment shape us

Credit / award	Non-accredited		
Start date	11 September 2019	End date	09 October 2019
Day and time	Wednesdays 18:00-19:30	No of meetings	5
Venue	Faculty of Divinity Sidgwick Site Cambridge		
Tutor	Dr Amber Ruigrok Dr Ericca Stamper Rachell Sánchez-Rivera	Course code	2910NWR001

Director ISP and LL Sarah Ormrod

For further information on this course, please contact Head of Academic Centre Administration, Zara Kuckelhaus zara.kuckelhaus@ice.cam.ac.uk or 01223 764637

To book See: www.ice.cam.ac.uk or telephone 01223 746262

Tutor biographies

Dr Ericca Stamper received her PhD in Molecular and Cell Biology from the University of California, Berkeley. She is currently working as a postdoctoral researcher at the Cancer Research UK Cambridge Institute and the EMBL European Bioinformatics Institute. Her current research is in mammalian genomics.

Dr Amber Ruigrok is cognitive neuroscientist with a PhD from the University of Cambridge and currently works as a Research Associate at the Autism Research Centre, Department of Psychiatry, University of Cambridge and as a Teaching Fellow at Lucy Cavendish College. Amber's research focuses on sex differences, autism, hormones and their influence on brain development; however, her interests span more broadly to sex differences and hormonal influences across human development and the psychiatric spectrum.

Rachell Sanchez submitted her PhD in Sociology and Latin American Studies at the University of Cambridge. Additionally, she holds a BA in Political Science and History from the University of Puerto Rico, Río Piedras Campus and an MA in Regional Studies – Latin America and the Caribbean from Columbia University in the City of New York.

Course syllabus

Aims

1. To promote knowledge and understanding of the biological, psychological, and social processes that work together to shape us into who we are as individuals. We will be covering a selection of current topics including what we get from our parents, interactions between nature and nurture that shape us, health, sex and gender, race and ethnicity, and personality and behaviour.
2. To critically assess and debate research evidence presented in the course, related to the complex processes that shape us, including biological and environmental factors and the debate around nature vs nurture.
3. To evaluate how interdisciplinary theories help us understand the complex factors that shape us, and to promote self-reflection to enable participation in ongoing discussions in relevant topics in society.

Content

Session 1: Not a blank slate: what we get from our parents

Tutors: Dr Ericca Stamper and Dr Amber Ruigrok

In this session, we will start with a general introduction to the course topics. We will present the basic concepts that will frame our discussions about the interactions of the biological, psychological and social processes that shape us into who we are. We will also introduce the nature versus nurture debate.

The remainder of this session will be dedicated to the first major topic of the course: What we get from our parents. The session will introduce a selection of biological, environmental, and sociological factors that affect when and how we enter the world. We will cover the basic principles of genetic inheritance. We will also discuss how environmental factors such as parenting style and cultural environment shape us.

Session 2: It's complicated: interactions between nature and nurture that shape us

Tutors: Dr Ericca Stamper and Dr Amber Ruigrok

We expand on the concepts introduced in first session and discuss the limits of binary thinking when aiming to understand the complex ways in which biology, the environment, and society interact. This discussion will allow for a change in perspective of the blending boundaries between ourselves and the environment. We will explore the complexity of interactions between our genes, biology, and environment through examples of complex physical traits, disease, and psychology.

Session 3: What's sex got to do with it? Sex and gender in current society

Tutors: Dr Amber Ruigrok and Rachell Sánchez-Rivera

The previous two sessions have allowed us to explore and understand some of the complex ways biology and psychology interact to influence our behaviour. In this session we will introduce some of the fundamental categories that influence how human beings think of and identify themselves by exploring sex and gender.

This session will explore the biological and cultural factors that influence our sex and gender identities. The first part will give a general overview of how the sex chromosomes determine biological sex. We will then cover the effects of sex and hormones on brain development and our health. We will also discuss examples of variation in biological sex and sexual development.

In the second part of the session, we will discuss how social and cultural norms can shape our ideas of sex, gender and sexuality. We will continue to examine how sex and gender binaries do not properly reflect the diversity found in human societies. Instead, we will analyse how gender identity, gender expression, and sexual orientation may be better understood on different continuums. Finally, we will see how sex, gender, and sexuality are influenced by cultural and historical contexts and are part of systems of inequality.

Session 4: Many shades of colour: human diversity, race and ethnicity

Tutors: Dr Ericca Stamper and Rachell Sánchez-Rivera

In this session, we will discuss another important aspect of our identity that influences how people categorise us and how we view ourselves: race. We will explore how the concept of race has been influenced by biology, as well as by society and politics.

We will start this session with an overview of human genetic diversity, and also give an introduction to the theory of the African origin of modern humans. We will then explore the question of whether or not there is a biological basis for race.

We will continue the session with an examination of race not as a biological, but rather as a social construction, and a reality of differential treatment. We will explore how society and history influence ideas around race, its connection to the history of colonisation, and examples of the variation of understandings of race in different socio-cultural contexts. We will define differences between race and ethnicity and discuss how the concept of ethnicity was conceived as the use of racial terms was discredited. Finally, we will discuss how race and ethnicity affect our identities and how they relate to differences in the privileges or constraints that groups of people experience.

Session 5: Finding yourself: personality and mental health

Tutors: Dr Ericca Stamper and Dr Amber Ruigrok

When we think about “who we are” we often think about personality. But what, really, is a personality? In the final session of the course, we will explore the ideas around personality and behaviour. We will begin by challenging the idea of personality. We will explore the connections between traits, behaviours, and the construct of a stable personality. We will give an overview of different genetic and environmental factors that influence our personality traits. We will also discuss mental health as a spectrum, with examples from various mental health disorders.

In the final part of this session, we will reflect back on our views and beliefs at the start of the course and discuss ways in which these beliefs have changed or remained the same.

Presentation of the course:

The course will use a combination of interactive lectures, group activities, discussion, and self-reflection exercises. Interaction with students on the VLE will be encouraged as a way to promote additional and optional discussions, a space for question submission, and as a platform to provide supplemental readings and materials.

As a result of the course, within the constraints of the time available, students should be able to:

1. identify and briefly explain a range of interacting factors which influence our individual characteristics such as genetic inheritance and diversity, personality, and social constructs influencing concepts of gender and race.
2. recognise the importance of interdisciplinary approaches for understanding the biological, psychological, and social factors that interact in complex ways to shape us as individuals in our current society.
3. self-reflect, through a series of in-class activities, how various biological, psychological and socio-cultural factors make us who we are.

Note on classroom respectful behaviour, decorum and civility:

In this course, we will be addressing topics that people may find sensitive. Students may not always agree on the issues and with opinions discussed and expressed in the classroom.

In our community of learning, debate is encouraged, as a range of perspectives makes discussion more challenging. However, students are expected to respect the opinions, beliefs and experiences of other students and the instructors in the class. All parties are expected to engage in discussions with an open mind and respond to others' views appropriately. The group may agree to disagree on a topic and should view the discussion as a place of expression of ideas.

We encourage self-reflection in the course. However, if the student is not comfortable addressing specific topics in this manner, they can choose not to participate.

Reading and resources list

Listed below are texts that might be of interest should you wish to supplement your learning on the course. Any essential reading is marked with an asterisk *

Author	Title	Publisher and date
Session 1		
Genetics Science Learning Center	Please explore 5 topics in the “Tour of basic genetics”: <i>What are Traits?</i> , <i>What are DNA & Genes?</i> , <i>What are proteins?</i> , <i>What is inheritance?</i> , and <i>What is mutation?</i> https://learn.genetics.utah.edu/content/basics/traits/	University of Utah
Ferguson, D.	<i>Working class children get less of everything - including respect. Interview with Diane Reay</i> https://www.theguardian.com/education/2017/nov/21/english-class-system-shaped-in-schools	The Guardian, 2017
Session 2		
Genetics Science Learning Center	<i>Observable Human Characteristics</i> https://learn.genetics.utah.edu/content/basics/observable/	University of Utah
Julian Baggini	<i>Do your genes determine your entire life?</i> https://www.theguardian.com/science/2015/mar/19/do-your-genes-determine-your-entire-life	The Guardian; 2015
Session 3		
Page, D.	<i>Video: “Why sex really matters”</i> https://www.youtube.com/watch?v=nQcgD5DpVIQ	TEDx, 2013
Fausto Sterling, A.	<i>The Five Sexes, Revisited</i> https://pdfs.semanticscholar.org/21a4/4d10b40354a974c8d1d3a9a0e66fef731e75.pdf	Sciences, 2000

Session 4

- Busby, G. Genetic studies reveal diversity of early human populations - and pin down when we left Africa The Conversation, 2016
<http://theconversation.com/genetic-studies-reveal-diversity-of-early-human-populations-and-pin-down-when-we-left-africa-65745>
- Roberts, D. *Fatal Invention: How Science, Politics and Big Business Re-create Race in the Twentieth Century.* (Introduction) 2011

Session 5

- Michael W. Krauss *Do genes influence your personality?* Psychology Today; 2013
<https://www.psychologytoday.com/gb/blog/under-the-influence/201307/do-genes-influence-personality>
- Edward Bullmore *This revolution in our understanding of depression will be life-transforming* The Guardian; 2018
<https://www.theguardian.com/commentisfree/2018/apr/29/revolution-in-our-understanding-of-depression-will-be-life-transforming>

Note Students of the Institute of Continuing Education are entitled to 20% discount on books published by Cambridge University Press (CUP) which are purchased at the Press bookshop, 1 Trinity Street, Cambridge (Mon-Sat 9am – 5:30pm, Sun 11am – 5pm). A letter or email confirming acceptance on to a current Institute course should be taken as evidence of enrolment.

Information correct as of: 12 August 2019