

Participant Information Sheet

What's your brain type? A big data platform

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Before deciding whether to take part in this study, it is important that you understand the purpose of the research and what participation will involve. Please take time to read the following information carefully and discuss it with others if you wish. If anything is unclear or you would like more details, you are welcome to contact a member of the research team using the email address provided below. Take as much time as you need to decide whether you would like to take part.

Purpose of the study

This study aims to collect large-scale online data on individual differences in cognitive profiles ("brain types") and link these differences to a comprehensive range of characteristics. Specifically, we will investigate relationships with personality traits, interests, cognitive style, mental and physical health conditions, and demographics. Data collection will recruit from the general population including individuals with specific neurodevelopmental conditions (e.g., autism), conditions of sex development (e.g., Androgen Insensitivity Syndrome; Turner's Syndrome), and other known genetic and endocrine conditions. Although the research team has a specialised interest in autism, the study's scope is deliberately broad to investigate a wide array of diagnoses and characteristics.

Brain types, also referred as cognitive styles, are a scientifically validated framework for understanding individual differences in human cognition and personality. Brain types have been linked to both social and biological factors, the latter including prenatal hormones.

Brain type classifications are determined based on performance on two scientific measures: the Empathy Quotient (EQ) which measures empathy and the Systemising Quotient (SQ) which measures systemising. Empathy is defined as the ability to understand what another person is thinking and feeling, and to respond with an appropriate emotion. Systemising is a separate construct defined as the drive to analyse, build, and construct systems. These systems include mathematics, music, engineering, weather patterns, aerodynamics, species classifications and more. The EQ and SQ have been used in research for over 20 years, have been translated into many languages, and are used by research teams around the world.

Why have I been invited to participate?

You may have come across an advertisement for this research project online, either through social media or a general web search. Alternatively, you may have received an invitation through an affiliated organisation that has kindly agreed to share information about the study with its members. You may also have been contacted directly by the University of Cambridge if you have previously taken part in research and consented to be informed about new studies. In some cases, you may have been contacted via social media if you have previously shared information publicly about a relevant condition or diagnosis.

Do I have to take part?

Taking part is entirely voluntary. You can withdraw at any time with no penalty or loss, now or in the future.

What will happen to me if I take part?

After you provide consent, you will be asked a few questions about your demographics (such as age, sex, and gender) and any relevant medical conditions related to your neurological profile (e.g., ADHD), hormone conditions (e.g., diabetes), or differences in sex development (e.g., XXY/Klinefelter syndrome). If you do not want to answer any of these questions, you can select 'I prefer not to say'.

You will then be presented with 20 questions about personality and behaviour, and based on how you answered these questions a score will be calculated that tells you what your brain type is. Your brain type indicates your drive for empathy (your interest in people's thoughts and feelings) versus your drive for systemising (your interest in patterns, objects, and how things work, based on rules).

These background questions and self-report questionnaires should take no longer than 15 minutes to complete.

After receiving your "brain type" score, you will have the opportunity to complete several optional, well-established clinical online questionnaires. These include the Autism Quotient (AQ-10), the General Anxiety Disorder (GAD-7), and the Beck Depression Index (BDI). For each questionnaire completed, we will provide you with your score and guidance on how to interpret it. Finally, we will ask some additional background questions about your education, occupation, ethnicity, and other demographic details. Please note that participation is voluntary, and you are welcome to skip any questionnaire you prefer not to answer.

For participants who have conditions relating to sex development (e.g. XXY/Klinefelter's syndrome) an optional questionnaire will become available, which aims to understand your support needs.

Are there possible disadvantages and/or risks to taking part?

This project asks questions about sensitive topics, including anxiety, depression, low mood, self-harm, and suicidality. For some individuals, especially those with current mental health challenges or a history of trauma, answering these questions may cause feelings of anxiety or sadness.

We have taken the following steps to minimise any risk of distress:

- These sensitive questionnaires are marked with a trigger warning. You are free to skip these or exit the questionnaire at any time if prefer not to continue.
- If you feel distressed, we provide a list of contact details for [specialist support services](#) who can offer professional advice and help.

What are the possible benefits of taking part?

Whilst no financial rewards or prize draws are offered, the questions will prompt you to reflect on your typical behaviours, communication styles, interests, and how you process information. This can provide a deeper understanding of your own cognitive patterns and why you might approach the world differently from others.

Will my taking part in this project be kept confidential?

Yes, all your data remains strictly confidential.

All data will be identified only by a code, with personal details kept in a password and IP protected database. Survey responses and meta-data (geographic location and IP address) will be stored on the Qualtrics software (www.qualtrics.com) under the Cambridge University site license for Qualtrics. Your data will be retained on a secure, restricted-access storage drive at the University of Cambridge for 10 years after the conclusion of the research project. If you provide your email address, you may request its deletion from our contact list at any time, and this will be actioned promptly. However, once your response data are collected, they are fully anonymised and cannot be linked back to your email, so we will not be able to identify your specific responses for deletion.

Click here for more general information about Cambridge University's data protection policies. <https://www.information-compliance.admin.cam.ac.uk/data-protection/research-participant-data>.

What will happen to the results of the research project?

Results will be presented at conferences and written up in journals. Results are normally presented in terms of groups of individuals. If any individual data are presented, the data will be totally anonymous, without any means of identifying the individuals involved.

Who is organising and funding the research?

This research is led by researchers in the Department of Psychiatry at the



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Autism Research Centre

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University of Cambridge. Their funding comes from a variety of sources, for related projects, including the Wellcome, the Autism Action, the Simons Foundation, and the Rosetrees Trust.

Ethical review of the study

The project has been reviewed by the University of Cambridge Psychology Research Ethics Committee and been given a favourable opinion.

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Contact for further information

If you have any questions, please email Dr. Simon Braschi at sb2660@cam.ac.uk.