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### Using Virtual Reality to Understand how People Interact with Others

#### **Participant Information**

You are invited to take part in our research project. You have been invited because (1) you provided your contact details when you responded to an advertisement for the project, or (2) because you participated in another autism@MQ study at Macquarie University and agreed to be contacted about future research opportunities.

**What is the purpose of the study?** The study is looking at how autistic and non-autistic people navigate their interactions with other people and understand social information such as gestures and eye gaze. We also want to know about people's experiences of interacting with others using virtual reality.

**Who can take part in the study?** We are currently recruiting **adults** who live in the Sydney area. All participants must have normal vision (or have corrected vision using contact lenses). You cannot participate if you need to wear glasses to use a computer or read. You must also have no history of brain injury, brain impairment or epilepsy, and must have at least some spoken language ability. Eligible participants include:

1. **Individuals with an autism diagnosis**
2. **Typically developing individuals without an autism diagnosis** (i.e., non-autistic individuals with no language or communication difficulties, no family history of autism). These participants are very important because they provide an objective age-matched comparison.

**What is involved?** If you decide to participate, and if you have a diagnosis of autism, you may be asked to participate in some diagnostic assessments. We will ask you a series of questions relating to your diagnosis and daily experiences. While most people find it helpful to discuss issues related to their diagnosis, a person can, on occasion, become distressed. If this starts to happen to you, please tell the interviewer. If after the session, you feel that there are issues that you would like to discuss further, we advise that you contact your treating clinician or case manager. Psychological services are also available from the Psychology Clinic at Macquarie University (ring for an appointment on +61 2 9850 8000).

All participants will also be asked to carry out a series of tasks, including some general thinking tasks (e.g., remembering numbers and words, problem-solving), decision-making tasks (e.g., making judgments about information presented in booklets), completing simple tasks on a computer (e.g., pressing a button when a particular item is presented) or playing games using virtual reality headsets. The tasks are simple, and you will be given some practice beforehand.

At the end, we will ask you some questions to see what you thought about the tasks. We would like your permission to audio-tape your responses. This will make the session run smoother and ensure we correctly record your responses.

During the computer and virtual reality tasks we may also record your eye and hand movements using a special camera and sensors. There are no risks associated with this recording technique. This technique does not involve any video recording of your face, and you cannot be identified from the data that will be recorded.



**Are there any risks involved in this research?** This experiment and the technology used have been designed to reduce discomfort. However, when participating in virtual reality experiments some people may still experience discomfort, nausea, disorientation or other symptoms similar to motion sickness. If you feel uncomfortable, tired or anxious at any time, just tell us and we can end the session.

**Do we get paid for taking part?** You will be reimbursed \$20/hr. Free parking can also be arranged in the basement of our building.

**Note.** You will not receive monetary reimbursement if you are participating for course credit through the MQ Psychology SONA system. You will only receive 1.5 credit point for every 30 minutes of participation.

**Is my privacy protected?** Any information or personal details gathered in the course of the study are confidential (except as required by law). No individual will be identified in any publication of the results. Only the investigators directly involved in the project will have access to identifiable data. An anonymous version of the data in which individuals cannot be identified may be shared with other researchers, for example, in an online scientific data repository (e.g., Open Science Framework) as a condition of publication in a scientific journal. With your permission, de-identified data may be made available to other researchers for the purposes of future, unspecified research projects that have received independent approval from a Human Research Ethics Committee. This is in accordance with the Australian Code for the Responsible Conduct of Research (2007). A summary of the results of the data can be made available to you on request to Dr Nathan Caruana on 9850 2989.

**Who is conducting this study?** This project is being conducted by a team of psychologists and cognitive scientists conducting research in autism at **Macquarie University**; Dr Nathan Caruana, Ms Friederike Charlotte Hechler, Mrs Ayeh Alhasan, Ms Christine Inkley, Ms Kirilee Wagner, Ms Hannah Rapaport, Mr Simon Brett, Ms Courtney Munro, Ms Glicyr (Ann) Perez, Dr Patrick Nalepka, Dr David Kaplan, Prof Genevieve McArthur, Prof Michael Richardson, Prof Liz Pellicano and Prof Emily Cross.

**Are there any special requirements in order to participate?** Yes. In order to take part in this study there are some criteria you must meet:

1. You must have normal vision, or vision corrected using contact lenses (no glasses).
2. You cannot wear make-up on your face (e.g. mascara or eyeliner).

**Where do I have to go?** The research is being conducted at the Psychology Lab (level 8) – 4 First Walk, Macquarie University, NSW 2019 University Ave, Macquarie University.

**How long will it take?** The session will be approximately 1.5 hours.

**What happens if I change my mind?** Participation in this project is voluntary and it is important to us that you are happy to be involved. You are free to withdraw from the study at any time, without a reason, and there will be no penalty.

**What should I do if I want to discuss this study further before I decide?** When you have read this information, if you would like to find out more about this study please contact **Dr Nathan Caruana on 9850 2989**. The ethical aspects of this study have been approved by the Macquarie University Human Research Ethics Committee. If you have any complaints or reservations about any ethical aspect of your participation in this research, you may contact the Committee through the Director, Research Ethics (telephone (02) 9850 7854; email [ethics@mq.edu.au](mailto:ethics@mq.edu.au)). Any complaint you make will be treated in confidence and investigated, and you will be informed of the outcome.

**Thank you for taking the time to consider this study.**