



PARTICIPANT INFORMATION SHEET (PIS)

Project title: Brain Activity & Social Perception Study

Dear Participant,

Thank you for your interest in our research study. This research explores how people form first impressions of others during job interviews, and how attention and the body's responses relate to the social judgements we make. Understanding these fast, everyday judgements can help us learn more about how people evaluate one another in social and professional situations.

In this study, you will watch short pre-recorded video clips of people in job interviews and rate your impressions of them, while wearing non-invasive brain (EEG), heart (ECG), and breathing sensors, and a small device worn on the ankle that gently vibrates in a heartbeat-like pattern. The clips are pre-recorded study materials. The study does not involve any live interview, any real interviewee being present, or the use of any of your personal accounts or information.

You may participate if you:

- Are aged 18 to 39
- Understand and speak English
- Have normal or corrected-to-normal vision
- Are able to watch video clips and answer rating questions on a computer
- Are willing to wear an EEG cap, ECG sensors, a respiration belt, and a small ankle device

You may not be able to participate if you:

- Have an electrical medical device such as a pacemaker, insulin pump, or hearing aid
- Have a known heart (cardiac) condition or an irregular heartbeat (arrhythmia)
- Have an injury to your ankle or lower leg that could be affected by wearing the ankle device
- Have any metal item on or in your head. This does not include glasses
- Have a scalp skin condition such as eczema, psoriasis, or dermatitis that affects your scalp
- Have blood clotting problems due to haemophilia or medication
- Have had a recent significant head injury or fall that required an overnight hospital stay
- Have a known neurological condition such as epilepsy
- Have known allergic reactions or strong skin sensitivity to adhesive ECG electrodes, metals, or latex
- Cannot safely or comfortably wear the study equipment

Please let us know before the session if you have dreadlocks, afro-textured hair, recently dyed hair in the last month, hair extensions, or headwear requirements. These do not automatically exclude you, but they may affect EEG setup or data quality.

Before arriving at the lab:

- The night before your session, please wash your hair with shampoo, but not conditioner
- Please avoid heavy hair products such as gel, wax, oil, or hairspray before the session
- Please avoid caffeine and alcohol for at least 3 hours before the session, as they can affect the heart and brain recordings
- The lab space can vary in temperature. We will try to keep it comfortable, but we ask that you dress in layers

- A shower, towels, shampoo, and a mirror are available so you can rinse the EEG gel from your hair and tidy up afterwards

Participation involves:

- Reviewing and signing the Consent Form
- Completing brief demographic and eligibility screening questions
- Having an EEG cap fitted on your head to record brain activity from the scalp, using a BrainVision Recorder system
- Having three ECG electrodes connected to a BITalino Revolution board to record heart activity
- Wearing a respiration belt around your lower chest to record your breathing
- Wearing a small device on your ankle that gently vibrates in a heartbeat-like pattern
- Sitting quietly for a short baseline recording
- Watching a series of short pre-recorded video clips of people in job interviews
- After each clip, answering rating questions about your impressions of the person and how you felt while watching
- Taking short breaks between blocks if needed
- Completing comfort and experience questions and giving brief written or spoken feedback
- Having all sensors and equipment removed

The full session is expected to take approximately 2 hours, including consent, setup, the task, breaks, and equipment removal.

The tools you will use

This section explains what you will interact with during the session. Both are used only for this research. The video task uses pre-recorded study clips, and the ankle device only provides a gentle vibration. Neither connects to any of your personal accounts or information.

1. The ankle device. The device is small and lightweight and is worn on the ankle. While you watch the clips, it delivers a gentle vibration in a heartbeat-like pattern. The researcher will explain what the vibration represents at the start of each part of the session. The vibration is set to a low, comfortable level for you at the beginning, and you can ask for it to be adjusted or removed at any time.

2. The video task. The task runs on a computer and shows a series of short pre-recorded video clips of people taking part in job interviews. After each clip you answer some quick questions about how the person came across and how you felt while watching, using on-screen rating scales. All clips are pre-recorded study materials. The task records only your ratings, response times, and progress, labelled with your participant ID code.

What you get:

- A \$20 Woolworths voucher as a thank you for your time

If you withdraw part way through the study, you will still receive the voucher.

Data collected:

Physiological and attention data:

- Brain activity from the EEG cap, recorded with a BrainVision Recorder system
- Heart activity and heart rate variability from the three-electrode BITalino ECG setup
- Breathing from the respiration belt

Task and questionnaire data:

- Your ratings and impressions of the people in the clips
- Response time and task progress measures
- Demographic information and eligibility screening responses
- Comfort, experience, and acceptability questionnaire responses

- Brief written notes or de-identified responses about your study experience

No personal accounts, passwords, or private information will be accessed in this study.

What will happen to your data:

Data De-identification: You will be assigned a unique participant ID code, such as TS-P01. This code will label your data instead of your name. Only the Principal Investigator and authorised student researchers will have access to the master list linking your identity to your ID code. This list will be stored separately from the research data.

Data Storage: Paper forms such as consent forms will be stored in a locked cabinet at the Auckland Bioengineering Institute, separate from research data. Electronic data such as EEG, ECG, respiration, task responses, questionnaire responses, and feedback notes will be stored on password-protected computers and secure University of Auckland network research storage. All storage locations are access-controlled and available only to research team members and research assistants who have signed confidentiality agreements.

Data Retention: If you participate, your data will be kept for 6 years on University of Auckland premises and servers. After 6 years, all data will be permanently destroyed.

Data Use: Your de-identified data will be used for research purposes only, to analyse how the felt signals and attention relate to the impressions people form of others, alongside the EEG, ECG, and respiration responses and your experience of the session. No information that could identify you personally will be used in reports, publications, or presentations.

Medical Interpretation: EEG and ECG data are collected for research purposes only. They are not collected for diagnosis or clinical monitoring, and the research team will not provide medical interpretation of your EEG or ECG data. If you feel unwell during the study, the researcher will pause the session and provide appropriate support.

Māori Data Sovereignty: For Māori participants, we acknowledge that physiological data may be considered taonga requiring specific protections aligned with rangatiratanga. All data will be stored securely within Aotearoa New Zealand. You may ask questions about how your data will be handled before deciding whether to participate.

Dissemination of Results: Study findings will be disseminated through academic journal publications, conference presentations, and may be included in the student researchers' theses. De-identified data may be shared with other researchers for scientific purposes where this is consistent with ethical approval and data protection requirements. No individual participants will be identifiable in any outputs.

Commercialization: This is proof-of-concept academic research with no commercial partners or commercialization plans. There are no current agreements with any commercial entities, and no commercial products are anticipated from this research. Any future intellectual property considerations would be governed by standard University of Auckland policies.

Your rights as a participant:

- You may stop the experiment at any time without penalty
- You may request breaks or ask for equipment to be adjusted or removed at any time
- You can withdraw your data within two weeks of participating, without giving a reason. Simply email the researcher with your participant tag, and your data will be deleted from storage where it remains traceable
- Requests for data withdrawal beyond the two-week mark may not be possible because data may already be de-identified and included in analysis
- You can request a copy of the data collected from you during the study by emailing the researcher with your participant tag
- If you are a student of the researchers, your participation or non-participation will not impact your grades or your relationship with the University. Any concerns can be addressed by contacting your academic head

If you have any questions or want more details, please do not hesitate to contact us.

WHO WE ARE

The Empathic Computing Laboratory (ECL) is an academic research laboratory at the Auckland Bioengineering Institute, University of Auckland, in Auckland, New Zealand. Directed by Prof. Mark Billingham, the ECL is exploring new ways for technology to enable people to better understand one another.

IMPORTANT NOTICES:	Please read these carefully before deciding whether to participate.
Physical Contact	This study involves physical contact for sensor application. The EEG cap will be placed on your head and may require the researcher to touch your head or hair. ECG electrodes will be placed on the skin to measure heart activity, a respiration belt will be fitted around your lower chest, and a small device will be fitted on your ankle. You will be consulted throughout the process and may request breaks or adjustments at any time.
Cultural Protocols	For Māori participants, we respect tikanga protocols regarding physical contact with the head and body. The researcher will ask permission before touching your head or body. Karakia can be offered to bless the equipment if desired. You may bring whānau or a support person to your session.
EEG Setup	EEG is non-invasive and records electrical activity from the scalp. Electrodes are placed on the surface of your head using a fabric cap, and a gel or saline-based solution is used at electrode sites to improve signal quality. You may need to wash or adjust your hair after the experiment; a shower and facilities are provided.
Heart & Breathing	Heart activity is recorded with skin-surface ECG electrodes, and breathing is recorded with a soft belt worn around your lower chest. Both are non-invasive and are used only for research, not for medical diagnosis.
Ankle Device	The ankle device provides a gentle vibration in a heartbeat-like pattern. It is designed to be subtle and non-painful. You can ask for the session to pause or stop, or for the device to be adjusted or removed, if anything feels uncomfortable.
Breaks & Withdrawal	You may request breaks during sensor application or between task blocks. You may withdraw from the study at any time without penalty or consequences.

Research team

Andreia Valente Ph.D. Student (Researcher conducting this study) Empathic Computing Laboratory Auckland Bioengineering Institute University of Auckland, New Zealand aval430@aucklanduni.ac.nz	Zane Karai Ph.D. Student (Researcher conducting this study) Empathic Computing Laboratory Auckland Bioengineering Institute University of Auckland, New Zealand zkar517@aucklanduni.ac.nz	Prof. Mark Billingham Professor (Principal Investigator / Supervisor) Empathic Computing Laboratory Auckland Bioengineering Institute University of Auckland, New Zealand mark.billingham@auckland.ac.nz	Dr Chris Erb Senior Lecturer (Advisor) Psychology University of Auckland, New Zealand christopher.erb@auckland.ac.nz
---	--	--	---

Approval: This study has been approved by the University of Auckland Human Participants Ethics Committee on 22/03/2024 for three years (expiry 22/03/2027). Reference Number UAHPEC26829.

For any concerns regarding ethical issues, contact:

Chair, the University of Auckland Human Participants Ethics Committee
Office of Strategy, Research and Integrity, University of Auckland, Auckland 1142, New Zealand
Telephone: +64 9 373-7599 ext. 83711 Email: humanethics@auckland.ac.nz