PARTICIPANT INFORMATION SHEET

Assessment of vision using behavioural testing and/or functional MRI

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We would like to invite you to take part in a research project investigating how you see the world. If you choose to take part in our study you will be asked to visit the eye clinic and make some simple judgements about a series of images presented to you on a screen. For example, we may ask you to keep looking at a cross in the centre of the screen, and then press a button if you see an object at the edge of the screen. You may also be asked if you would consider having a Magnetic Resonance Imaging (MRI) scan. This will involve lying down and being scanned while making judgements about images on the screen, or simply watching a series of changing images. We will provide you with a separate information sheet about this if you are selected.

It is important you read all of this document carefully so that you can make an informed decision about whether you would like to participate.

1. Purpose of the research: By observing your response to a variety of visual stimuli (a set of images presented on screen) we aim to characterise the limits of visual performance. Using behavioural methods we aim to better understand the cognitive processes that underlie visual ability.

2. Your rights as a participant: Participation in this study is entirely voluntary. If you choose to participate, you can change your mind at any time without giving a reason and without any negative consequences. Whether or not you participate will not affect your relationship with the researchers in any way. Participation or non-participation in the study will bear no penalties or loss of benefits with regard to the services provided to you by the University of Auckland Optometry Clinic. If you are a student of the researcher, your academic grades will not be affected whether you decide to participate or not: the head of school will provide written assurance that grades and academic relationships will not be affected. After your participation is completed you have the right to request access to your data, and will still have the right to request that your data be withdrawn from the study for up to one month. You will be given a copy of this patient information sheet to keep.

3. Procedure: If you would like to volunteer, you will first be asked to participate in a 5 minute telephone interview to check that you are eligible for the study. If you are eligible for the study, you will be invited to complete either one or both of the sessions described below. The scheduling of these sessions will normally be within days to weeks of each other.
If you decide to participate, at the beginning of your first session you will be asked to fill in a short questionnaire including demographic questions (e.g. handedness, age, education history, etc.) and questions about medical conditions that may affect the ability to complete the tasks (e.g. known vision problems, any history of neurological or psychiatric conditions). This will take around 5 minutes to complete.

You are invited to participate in (for researcher to tick):

- ☐ Session A
  - Vision tests
- ☐ Session B
  - Vision tests
  - MRI

If you are invited to take part in Session A, you will be asked perform a number of visual tasks, sitting at a computer screen as described above. During the task we may record where your eyes look on the screen (with specialist eye tracking equipment or a video recording). In some experiments, we are interested in testing the two eyes separate and therefore ask you to wear a soft, cloth eye patch. After the tasks you will be debriefed on your performance on the task. This session will take a maximum of 3 hours to complete, which includes filling in the consent form, short questionnaires, some practice trials the study trials and then a debrief.

If you are invited to take part in Session B, you will be given another information sheet with more information about MRI scanning for you to consider.

All sessions will take place at the Faculty of Medical and Health Sciences, Park Road, Grafton, either in the School of Optometry and Vision Science or at the Centre for Advanced MRI (CAMRI). Most of the vision testing will take place in the school, sitting looking at a screen. In some cases we may ask you to perform the vision testing in the “mock” MRI scanner at CAMRI. The mock scanner looks very much like a real MRI scanner but there is no magnetic field present or images taken. Using the mock scanner for vision testing allows us to more closely compare results to those taken when inside a real scanner.

4. Risks and discomforts. Because we are often interested in the limits of your visual performance, the task may get increasingly difficult and we may measure you performance over a considerable number of repeated series of images, therefore completing the tasks may be a little tiring. However you will be given regular breaks and the images you will be presented with will not contain stressful or emotional material.
5. **Detection of Abnormalities**: Although we will not be conducting a full eye examination as part of this study, we may incidentally identify abnormalities with your eyes such as uncorrected myopia or dry eye. If we do identify anything like this we will tell you and if you wish you may be treated in the appropriate manner by the qualified optometrists involved in the study, either directly or by referral for further examination, opinions, or treatment as required. **If you do not wish to know about this type of finding, please do not participate.**

6. **Benefits.** There are no direct benefits to you, but your participation will contribute towards our understanding of how the brain processes images. As compensation for your time and travel costs you will receive $25 for each session you participate in. You can also request a copy of the final published report of the study.

7. **Confidentiality and data storage.** Your name will only appear on the attached Consent Form, which will then be coded with an identification number. This identification number is used to de-identify all other data, so that your identity is kept confidential. Your data (i.e. questionnaires, tests and scans) will only be referred to or labeled using this identification number. The Consent Form will only be seen by you and the investigators, and will be kept in a secure filing cabinet for six years, after which time it will be securely and confidentially disposed of. Any information that identifies you as a participant will be used confidentially and kept in a secure location. After completion of the study, data, including computer data files, will be kept for a minimum period of six years to allow for publication and future re-analysis. Research publications and presentations from the study will not contain any information that could personally identify you.

8. **Future research.** We would like to contact you in the future to invite you to participate in further research (it is often very useful for us to compare how vision changes over time). If you are happy for us to contact you again about further studies we would be grateful if you supply your preferred contact details on the consent form. Only researchers within the School of Optometry and Vision Science will contact you and this will be a maximum of four times a year. You may opt out of being invited to future studies at any time.

*Thank you for taking the time to read this information sheet. If you have any queries or concerns, please contact us:*

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