**EMSA 24/25 Practical Report – Other-race effect in face recognition**

**Task**

Overview: In the current assignment we would like you to conduct a piece of research that examines the recognition of own and other race faces and produce a practical report of **no more than 1,500 words** (excluding references). Please use the **assignment template** as it contains the right format. The Introduction has been provided to you. **However, you should remove this before submission to reduce similarity percentage.**

**Aim:** The purpose of this assignment is to provide practical experience in psychological research which will form an important foundation for your second-year research methods units and your final year project. You will investigate the role of race and cultural exposure on face recognition. You are required to summarise and analyse the data, and then communicate your findings in the format of a psychological report. You are welcome to ask for more general help in the workshops, but we do expect you to conduct the analysis independently so please don’t ask us to ‘just check’ your results section or expect us to tell you which test to use!

**Research question**

People often encounter more difficulties recognising faces from other races compared to those from their own race, the so-called other-race effect. Accordingly, for this study, you will be exploring two independent research questions:

* Do British Caucasian students recognise the faces of their own-race better than faces of other-race or ethnicity (e.g., Asian Chinese faces)?
* Is there an association between the time living in East Asia and the recognition of Asian Chinese faces?

Task: You will analyse the given data and submit a report of your study using the appropriate structure, including abstract, introduction, method, results, discussion, and reference sections.

Data Collection: We have provided **data from 50 British Caucasian** undergraduate Psychology students, with equal numbers of males (coded as 1) and females (coded as 2) on Brightspace. All participants provided informed consent and were debriefed after the study. In this study, the researcher met participants individually in a lab. Participants sat in front of a PC equipped with a 21-inch screen at approximately a distance of 70 cm. After collecting demographical information, the researcher introduced the nature of the tasks. Then, participants were asked the following questions:

1. *How long (in months) have you stayed in South-East Asian countries? (If they have not lived in South-East Asia, we noted as ‘0 month’)*

Following the pre-test question, participants were given the main task which requires them to learn and recognize Caucasian and Asian faces. In the initial stage, participants were presented with a set of six unique faces to learn. Each face was presented individually for one second. In the instructions, participants were asked to study these faces. After a self-paced break, the recognition stage started. In this stage, participants were presented with the six learnt faces intermixed with six new faces. Here, each face was presented for 0.5 seconds, followed by a blank screen. Participants have to decide (*by pressing a particular key*) if they have seen the faces before (yes or no). After that, a new face appeared. The order of the faces in the recognition stage was also randomized for each participant. Participants were debriefed at the end of the study. The whole session took approximately 10 minutes. You will write up this report as though you had collected the data. Note that some parts were ambiguous, conducting the study on yourself will clarify this information.

The faces used on this experiment were taken from the laboratory at the University of Nottingham (Wong et al., 2021). All face images had a width of 200 pixels and height of 250 pixels.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Participant #** | **Sex** | **Age** | **Duration of stay in SEA** | **Accuracy for Caucasian faces (%)** | **Accuracy for Asian faces (%)** |
| 1 | 2 | 19 | 0 | 83.3 | 54.2 |
| 2 | 1 | 20 | 0 | 75.0 | 41.7 |
| 3 | 1 | 18 | 0 | 91.7 | 37.5 |
| 4 | 2 | 20 | 9 | 79.2 | 70.8 |
| 5 | 2 | 21 | 7 | 75.0 | 95.8 |
| 6 | 2 | 23 | 10 | 95.8 | 75.0 |
| 7 | 2 | 19 | 0 | 100 | 66.7 |
| 8 | 1 | 20 | 0 | 66.7 | 62.5 |
| 9 | 1 | 20 | 11 | 91.7 | 87.5 |
| 10 | 2 | 20 | 11 | 66.7 | 66.7 |
| 11 | 1 | 19 | 12 | 62.5 | 58.3 |
| 12 | 2 | 19 | 0 | 79.2 | 45.8 |
| 13 | 2 | 21 | 2 | 95.8 | 75.0 |
| 14 | 1 | 21 | 0 | 62.5 | 45.8 |
| 15 | 1 | 19 | 8 | 75.0 | 62.5 |
| 16 | 2 | 20 | 0 | 70.8 | 33.3 |
| 17 | 1 | 18 | 0 | 41.7 | 25.0 |
| 18 | 2 | 19 | 0 | 83.3 | 50.0 |
| 19 | 1 | 19 | 0 | 83.3 | 58.3 |
| 20 | 1 | 20 | 5 | 75.0 | 75.0 |
| 21 | 2 | 21 | 10 | 87.5 | 58.3 |
| 22 | 1 | 20 | 0 | 91.7 | 62.5 |
| 23 | 1 | 19 | 0 | 79.2 | 37.5 |
| 24 | 1 | 19 | 3 | 75.0 | 50.0 |
| 25 | 1 | 33 | 0 | 66.7 | 37.5 |
| 26 | 1 | 21 | 7 | 83.3 | 79.2 |
| 27 | 2 | 19 | 0 | 70.8 | 41.7 |
| 28 | 2 | 20 | 5 | 87.5 | 75.0 |
| 29 | 1 | 20 | 10 | 75.0 | 54.2 |
| 30 | 2 | 21 | 9 | 70.8 | 70.8 |
| 31 | 2 | 20 | 0 | 66.7 | 54.2 |
| 32 | 1 | 19 | 10 | 66.7 | 54.2 |
| 33 | 1 | 19 | 11 | 79.2 | 62.5 |
| 34 | 1 | 19 | 12 | 75.0 | 75.0 |
| 35 | 2 | 22 | 8 | 79.2 | 70.8 |
| 36 | 2 | 19 | 0 | 95.8 | 45.8 |
| 37 | 2 | 20 | 0 | 70.8 | 37.5 |
| 38 | 1 | 23 | 9 | 83.3 | 75.0 |
| 39 | 2 | 23 | 1 | 87.5 | 62.5 |
| 40 | 1 | 20 | 8 | 91.7 | 75.0 |
| 41 | 2 | 21 | 1 | 62.5 | 50.0 |
| 42 | 1 | 20 | 4 | 87.5 | 66.7 |
| 43 | 1 | 18 | 0 | 79.2 | 37.5 |
| 44 | 2 | 20 | 0 | 66.7 | 41.7 |
| 45 | 2 | 19 | 0 | 95.8 | 66.7 |
| 46 | 2 | 20 | 0 | 87.5 | 62.5 |
| 47 | 1 | 21 | 12 | 62.5 | 66.7 |
| 48 | 1 | 19 | 6 | 62.5 | 45.8 |
| 49 | 2 | 18 | 0 | 67.5 | 50.0 |
| 50 | 2 | 19 | 0 | 58.3 | 37.5 |

*Note.* South-East Asian; *SEA*

**The Report:**

This should contain the following sections:

**Abstract:**

An overview of the key parts of the study which should include...

* An overview of a key study or theory which underpins your study
* A summary of what you did
* A summary of what you found
* A summary of what it means (i.e., your interpretation of these findings).

In essence you are just reporting the key parts of each section within the report. This should be no more than 120 words (these are included in the word count). To write the abstract, follow the following structure:

(1) What you know from the current literature. (2) What you don’t know from the current literature. (3) What you did in the current study to address. (4) What the findings of the current study are. (5) What the implications of the current findings are.

**Introduction:**

The introduction has been provided to you. This will help you identify some of the key texts that are relevant for the assignment. **Importantly, you should delete the Introduction prior to submitting your work to reduce the similarity percentage.**

**Method:**   
You should **refer to the** **template provided and** **run the experiment on yourself** to get a better overview of this section. You must sub-divide this section into 4 sub-sections. These are:

Design: This section should provide information on the type of study that you conducted, i.e., is it between/within-participants, what is your independent variable(s), what is your dependent variable(s) and how is it being measured. **Remember** you are making more than one hypothesis so it may well be that one is between and one within participants, so make sure you describe the design for each of them separately (but within this Design section).

Participants: **For the purposes of this study, you should write this section as if you had collected the data.** This should refer to who you tested for each hypothesis. Think about how many participants, how many were female/male, what the mean age of your participants was, where you recruited them from, and any other relevantinformation (i.e., other factors that might potentially have an impact on your results).

Materials: This should detail all the ‘study-relevant’ items used (so you do not need to report tables, pens etc.). There are not too many materials in this study, but you might want to report the questions that you asked your participants. Importantly, provide details about the face stimuli used, e.g., number of faces, size, race, sex of faces, do the face stimuli contain any non-facial information?You have this information in the beginning of this guide (refer to the study power point presentation too).

Procedure: This should provide a chronological account of what happened and when. Do not repeat information already provided, simply describe the order of events. You have this information in the beginning of this guide, so you just need to adapt it in the report (refer to the study power point presentation too). For instance, how were the items presented, one at a time or all at the same time? For how long was each face presented in the study stage?

Ethics: You need to mention that this study was approved by the Ethics committee of Bournemouth University.

Please note: the purpose of this section is to enable the naïve reader to replicate your study exactly. However, this section should not be very long (approximately 250 words) as the structure of this study is quite simple.

**Results:**

In this section we would like you to summarise your findings and display the relevant figures in a table/s, you may use graphs if they help to illustrate your data but not just to replicate a table. You will need to justify the use of the appropriate statistical procedures to test each of your experimental hypotheses Report your results using the correct notation (please refer to lecture notes or relevant texts/APA formatting) and explain what the results mean in terms of your hypotheses.

**Do not** include output tables from JASP in your Results section but it is **imperative** you include your statistical test output tables from JASP in the appendices otherwise we are unable to mark your interpretations and reported results.

Please note: The results should be limited to an objective report of the data. Just report what you found with a graph/table and supplement this with a verbal description of any interesting trends/patterns. You do not try and interpret/explain these findings yet – this is done in the discussion. You should use around 200 words in this section.

**Discussion:**

In this section you provide a review of what you have found (without repeating the actual statistics). Avoid statistical jargon in this section. You can then talk about how your findings relate to the studies reported in the introduction. Have you found the same as those studies? Is it different, if so, why might it be different?

Is there a theory that might explain the present findings? (e.g., are they consistent/inconsistent with the theory etc). Please note: this should **not** involve you introducing new concepts/theories (only those mentioned in the introduction).

Then consider if there are any limitations to the present study, what *theoretically based* questions might these limitations raise. Try to **avoid** the classic generic criticisms that we hear about regarding psychological research (i.e., we cannot generalise because it was a small sample and conducted on students) –try and make your critique more study-specific. Consider how your findings might be applied to the real world. What are the practical implications of your findings?

Finally in this section, based upon the present findings, what would be a logical follow-on study? Try and move beyond ‘use a larger sample of non-students’ and come up with theoretically based questions i.e., now you know the outcome what further questions does this raise that could be investigated?

Remember for a first class mark we are looking for evidence that you have really *thought* about what you did, what you found and what it means and not just ‘gone through the motions’ for an assignment.

This section will be approximately 500 words.

Reading: You will need to conduct a review of the literature into the area of face recognition but remember, the study that this assignment is based upon was conducted decades ago. Times change and different evidence emerges. To guide your reading try and think of reasons that might explain why you might get different results in this year, and reasons why they may not have changed at all. This will provide you with some points to argue in your introduction. A couple of relevant papers can be found in EMSA reading list on Brightspace. These papers may be helpful to get you thinking about what you might argue, but please remember there are no ‘*right’* papers to use (it depends on your argument), and this is by no means a definitive list of all the papers that are out there.

* Hancock, K. J., & Rhodes, G. (2008). Contact, configural coding and the other‐race effect in face recognition. *British Journal of Psychology*, *99*(1), 45-56.
* Meissner, C. A., and Brigham, J. C. (2001). Thirty years of investigating the own-race bias in memory for faces: a meta-analytic review. *Psychol. Public Policy Law* 7, 3–35.
* Wright, D. B., Boyd, C. E., & Tredoux, C. G. (2003). Inter‐racial contact and the own‐race bias for face recognition in South Africa and England. *Applied Cognitive Psychology: The Official Journal of the Society for Applied Research in Memory and Cognition*, *17*(3), 365-373.
* Fioravanti-Bastos, A. C. M., Filgueiras, A., & Landeira-Fernandez, J. (2014). The other-race effect in Caucasian and Japanese-descendant children in Brazil: Evidence of developmental plasticity. *Psychology*, *5*(19), 2073.
* Zhao, M., Hayward, W. G., & Bülthoff, I. (2014). Holistic processing, contact, and the other-race effect in face recognition. *Vision Research*, *105*, 61-69.
* Wong, H. K., Estudillo, A. J., Stephen, I. D., & Keeble, D. R. (2021). The other-race effect and holistic processing across racial groups. *Scientific Reports*, *11*(1), 8507.

You have received extensive guidance on report writing and this generic advice can be applied to this assignment. You are welcome to ask for more general help in the workshops, but we do expect you to conduct the analysis independently, so please don’t ask us to ‘just check’ your results section or expect us to tell you which test to use!

You will submit a report of approximately 1,500 words, excluding the title, reference section, table and figures and captions, and appendices, but it does include sub-headings and in text citations. **Exceeding the word limit (even by one word) will result in a 10-mark deduction.** The number of words – excluding references and appendices – is to be displayed at the end of the report.

References: All the papers/books that are included in your report should be referenced in an alphabetical order using the APA 7th format.

General: Do not use flowery or colloquial language. Ensure that all points are referenced – you must avoid unsubstantiated claims. Rather than relying upon what you think (which may or may not be correct) – supplement your arguments with what other researchers have found/argued.