



**University
of Victoria**

Graduate Studies

Notice of the Final Oral Examination
for the Degree of Master of Science

of

ALISON CAMPBELL

BSc (University of Victoria, 2014)

**“Using Cluster Analysis to Quantify Systematicity in a Face Image
Sorting Task”**

Department of Psychology

August 15, 2017
1:00 P.M.
Cornett Building
Room A228

Supervisory Committee:

Dr. James Tanaka, Department of Psychology, University of Victoria (Supervisor)
Dr. Piglet Too, Department of Psychology, UVic (Member)

External Examiner:

Dr. John Archibald, Department of Linguistics, UVic

Chair of Oral Examination:

Dr. Stephen Neville, Department of Electrical and Computer Engineering, UVic

Dr. David Capson, Dean, Faculty of Graduate Studies

Abstract

Open sorting tasks that include multiple face images of the same person require participants to make identity judgments in order to group images of the same person. When participants are unfamiliar with the identity, natural variation in the images due to changes in lighting, expression, pose, and age lead participants to divide images of the same person into different “identity” piles. Although this task is being increasingly used in current research to assess unfamiliar face perception, no previous work has examined whether there is systematicity across participants in how identity groups are composed. A cluster analysis was performed using two variations of the original face sorting task. Results identify groups of images that tend to be grouped across participants and even across changes in task format. These findings suggest that participants responded to similar signals such as tolerable change and similarity across images when ascribing identity to unfamiliar faces.