



**University
of Victoria**

Graduate Studies

Notice of the Final Oral Examination
for the Degree of Doctor of Philosophy

of

MARIO JOSEPH BALDASSARI

MSc (University of Victoria, 2013)

BA (Lake Forest College, 2011)

“Two Approaches to Assessing Eyewitness Accuracy”

Department of Psychology

Tuesday, December 5th, 2017

1:00 p.m.

Clearihue Building

Room B017

Supervisory Committee:

Dr. D. Stephen Lindsay, Department of Psychology, University of Victoria (Supervisor)

Dr. C. A. Elizabeth Brimacombe, Department of Psychology, UVic (Co-Supervisor)

Dr. Rebecca Johnson, Faculty of Law, UVic (Outside Member)

External Examiner:

Dr. Brad Duchaine, Department of Psychological and Brain Sciences, Dartmouth College

Chair of Oral Examination:

Dr. Suzanne Urbanczyk, Department of Linguistics, UVic

Dr. David Capson, Dean, Faculty of Graduate Studies

Abstract

This dissertation presents two individual-difference measures that could be used to assess the validity of eyewitness identification decisions. We designed a non-forced two-alternative face recognition task (consisting of mini-lineup test pairs, half of which included a studied face and half of which did not). In three studies involving a total of 583 subjects, proclivity to choose on pairs with two unstudied faces weakly predicted mistaken identifications on culprit-absent lineups, with varying correlation coefficients that failed to reach the value $r = 0.4$ found in Baldassari, Kantner, and Lindsay (under review). The likelihood of choosing correctly on pairs that included a studied face was only weakly predictive of correct identifications in culprit-present lineups (mean r of .2).

We discuss ways of improving standardized measures of both proclivity to choose and likelihood to be correct when choosing.

The second measure is based on the Guilty Knowledge Test (GKT), a lie detection method that utilizes an oddball paradigm to evoke the P300 component when a witness sees the culprit. This GKT-based lineup was intended to postdict identification accuracy regardless of witnesses' overt responses, thus faces are used as stimuli. P300 component amplitudes evoked by the culprit were compared to those evoked by a different learned face to assess the method as a device to gather identifications when witnesses are unwilling or unable to make an overt ID.