



Kwantlen
UNIVERSITY COLLEGE

RESEARCH ETHICS BOARD

APPLICATION FOR ETHICS REVIEW
Cover Page

Application # 2004-023
(For REB use only)

(Please submit the original and keep a copy of all documents sent for review.)

Title of Project: Face Identification and Surveillance Camera Technology: Angle of View and External Features

Principal Investigator: Steve Charlton

Position: Full-time faculty

Department: Psychology

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Other contact methods (optional)

Fax

Pager

Preferred address to receive correspondence and/or approval if other than email

Co-investigator(s): (Name, Position, Department)

Additional assistants and their roles: Ian Grimsdick and Alvin Tong will be going into classes and asking for volunteers, administering the face identification test and running some statistical analyses.

4 key words: Faces, Identification, Angle, Lighting

Proposed Start Date: March 28/2004

Proposed End Date: June 21/2004

(Expect a minimum of 6 – 8 weeks for a response from the Research Ethics Board.)

Signatures

Principal Investigator:

Date:

Full title of research: Face Identification and Surveillance Camera Technology: Angle of View and External Features

1. Describe the purpose of the research.

The purpose of this research is to further knowledge about what variables affect our ability to match photos of faces with the faces observed on surveillance video tapes. This research will attempt to provide more productive methods for analyzing videotapes of criminal acts and highlight the problems of making positive identifications. This research will be funded by a minor research grant of 5,000.00 dollars from Kwantlen University-College. This funding was approved in the summer of 2003.

2. Describe the research question or hypothesis to be tested if known.

This study will involve several main research hypotheses. It is hypothesized that participants will more accurately identify a face from a surveillance video if the mug-shot has been photographed from the same viewing angle as the face in the video. If the video surveillance camera captures an image of the suspects face from above than more accurate identification from mug-shots may be achieved by using mug-shots that have been photographed from a similar angle. Alternatively, if the video surveillance camera captures an image of the suspects face from close at eye-level than more accurate identification from mug-shots may be achieved by using mug-shots that have been photographed from close at eye-level. A second hypothesis is that videotaped faces of individuals that show external features (hair on their head) will be easier to identify than faces of individuals wearing hats.

3. Describe the methodology of the research study/project.

The participants will be asked to view six 15 second video-clips, each followed by a presentation of 8 still photographs of faces in an array. After each video-clip the participants will be asked to identify whether one of the faces in the array matches the face of the suspect in the video. They will also be asked to rate how confident they are on a scale from 1 to 5. On 3 of the video-clips the suspect will be wearing a hat to hide their hair and on the other three video-clips the suspect will not be wearing a hat and their hair will be clearly visible. One third of the participants will view video-clips where the suspects have been videotaped from close-up at eye-level, another third will view video-clips where the suspects have been videotaped from close-up but from an elevated angle and one third will view video-clips where the suspects have been videotaped from far away but from an elevated angle. In order to test for the effects of angle of mug-shot, half of the participants in each of the video-clip conditions will be shown a photo-array with mug-shots that have been photographed from close-up at eye-level and the other half of the participants will be shown a photo-array with mug-shots that have been photographed from close-up but from an elevated angle.

4. Describe the method(s) of recruiting participants.

A research assistant will go into classes at Kwantlen and ask for volunteers. The volunteers will be asked to choose a time slot that suits their schedule.

5. Describe the participant groups in this study.

No exclusionary criteria will be used to rule out participants except that they should be at least 18 years of age and none of the researcher's students will be participants.

6. Will the study involve any potential risks to the participants? If so, please describe the risks.

The probability of any type of harm is very low. There are no potential risks.

7. Describe your informed consent procedures where applicable. Where it is not applicable, explain why it is not, e.g. where one is studying the public activities of politicians who have agreed to publicity, consent is already given. (Be sure to consider all of the elements of the Requirement for Free and Informed Consent in the guidelines.)

The participants will be given a consent form that is based on the consent form that is on the Kwantlen Research Ethics Board website. Following is the consent form as it will appear:

Consent Form

Title of Research Project: Face Identification and Surveillance Camera Technology

Principal Investigator: Steve Charlton

Application #:

Your participation in this research project is completely voluntary. You have the right to withdraw from the research study at any time. Even if you do not want to join the study, or if you withdraw from the study, you will still receive the same quality of instruction. Your decision also will not jeopardize your grades or studies. You should ask the principal investigator listed below any questions you may have about this research study. You may ask him questions in the future if you do not understand something that is being done. The investigators will share with you any new findings that may develop while you are participating in this study.

This consent form explains the research study you are being asked to join. Please review this form carefully and ask any questions about the study before you agree to join. You may also ask questions at any time after joining the study. See below for persons to contact.

The purpose of this research is to examine the ability of participants to identify photographs of faces that they have previously viewed in a video. You will be shown

several short video-clips. After each video you will be shown a board with photographs of faces and asked to state whether any of the faces match the face of the individual in the video. Your participation in this study will take approximately 30 minutes.

There are no risks involved in this study and participation in this experiment may be an interesting and educational experience for you. All of the information you contribute to the study will be treated confidentially. After the study, I will debrief you in person as well as provide you with a participant information form that describes the experiment.

Persons to Contact:

If you want to talk to anyone about this research study because you think you have not been treated fairly or think you have been hurt by joining the study, or you have any other questions about the study, you should call the principal investigator, Steve Charlton at 604-669-5065 or call the Kwantlen Office of Research and Scholarship at 604-599-2373.

Once you have read this document, or the document has been read and explained to you, and you have been given the chance to ask any questions, please sign or make your mark below if you agree to take part in the study.

Print Name of Subject: _____

Signature or Mark of Subject or Legally Authorized Representative

Date

Signature of Person Obtaining Consent

Date

8. Where deception is used, please include your rationale and debriefing procedures.

Not applicable. There will be no deception as the participants will be fully informed about the nature of the task.

9. What provisions are made for informing participants, for follow-up with participants?

Immediately, following the experiment, the participants will be given a debriefing form outlining the purpose of the research, how this study relates to past research, main hypotheses, basic design, and the possibility of publication of the results in a professional journal. They will also be offered their own individual results if they request it. Should the participant have further questions or want to know the general research findings, once the experiment is completed, then this will be made available to them through a contact number for the principle investigator. Following is the debriefing form they will be given.

Participant Information

Past research on crime and the use of surveillance cameras has shown that people have difficulty identifying a suspect from a surveillance video if the person is unknown to them. For example, when a crime has been committed the police may try to match the face in the surveillance video with a mug-shot of a suspect. The purpose of this research is to learn more about what variables affect our ability to identify or recognize faces in a surveillance video. The three main variables that were examined were the angle that the surveillance video was shot from, the angle that the mug-shot was taken from and whether the suspect was wearing a hat or not.

In this experiment, 3 groups of participants were shown different videos. One group was shown video-clips of suspects that had been photographed from eye-level and close-up. A second group was shown video-clips of suspects that had been photographed from above and close-up. A third group was shown video-clips of suspects that had been photographed from above and far-away. The angle that these video-clips were taped from was meant to be similar to the different ways surveillance video cameras photograph people in real life. For example, the ATM machine in banks often has a camera that is mounted close and at eye-level with the individual using the machine. Alternatively, they may also have a camera that is mounted high above the individual's head and from a considerable distance. One might expect faces that have been photographed from far away and from above to be more difficult to identify.

This experiment also examined the angle that the mug-shots were photographed from. Half of the participants in each of three video groups mentioned above were shown mug-shots that had been photographed from close-up and at eye-level. The other half of the participants were shown mug-shots that had been photographed from close-up and above. It was hypothesized that when mug-shot angle is the same as video angle a better match is made between faces. In other words, if the mug-shot is from above and the video is from above, then the faces will look more similar and they will be more likely to be identified. A similar situation could be expected from mug-shots that have been photographed at eye-level and videos that have been taken at eye-level.

The third variable in this study was whether the individual was wearing a hat. Every participant in this study was shown 3 video-clips where the suspect was wearing a hat and 3 video-clips where the suspect was not wearing a hat. It is expected that suspects will be more difficult to identify if they are wearing a hat because their hair, which is an important feature, will not be clearly visible.

The results of this study may be published in a professional journal.

10. How do you plan to handle the requirement of confidentiality and/or anonymity where applicable?

The data and consent forms will be stored in a locked filing cabinet in my office. I will be the only person who has access to them accept for the brief duration when the research

assistants enter the data into a computer for analysis. Each participant will be assigned a subject code immediately and no data that will be stored will contain names or traceable information. The consent forms will be retained one year and the computer data will be stored until the conditions for acceptance into a professional academic journal have been met.

11. Describe any potential conflict of interest of anyone involved in the research. Not applicable. There is no potential conflict of interest.

12. Describe any provisions for compensation of participants if applicable.

Not applicable. The participants will be asked to volunteer and their participation will not be a course requirement. Also no monetary compensation will be given.

This form must be resubmitted after approval if there are major changes to your study. See part C of the Kwantlen University College policy on post approval monitoring. Major changes include changes in protocol, consent, risks, participant groups, recruitment, compensation, deception, confidentiality, anonymity, researchers involved, or other ethically sensitive matters. Please highlight changes on the resubmitted form.

Date: _____ Signature: _____