EFFECTS OF ATTRACTIVENESS, DELAY, AND DISTINCTIVENESS ON FACE RECOGNITION

A thesis presented in partial fulfilment of the
requirements for the degree of

Master of Arts
in
Psychology

at Massey University, Palmerston North

Jennifer J. Barbour

1999

ABSTRACT

This study investigated the effects of attractiveness and delay on facial recognition. Distinctiveness was also examined in a second experiment. It was hypothesised that faces that were rated highly attractive or unattractive would be more memorable over time. Furthermore, a positive relationship between attractiveness and distinctiveness was expected.

In Experiment 1, 25 males and 25 females rated the facial attractiveness of 78 standardised photographs. These ratings were used to select three sets of 20 target faces for a standard facial recognition task, each set representing a different level of attractiveness: high, medium, and low. The recognition test was administered either 10 min or 28 days after the study phase, participants being randomly assigned to each combination of delay and attractiveness in 2 (Delay) x 3 (Attractiveness) between-groups design. There were main effects for both attractiveness and delay on recognition accuracy but the expected interaction between these two variables did not eventuate.

Experiment 2 was conducted to examine the relationship between attractiveness and distinctiveness ratings. A further 25 males and 25 females rated the facial distinctiveness of the 78 photographs used in Experiment 1. A strong curvilinear relationship was shown to exist between attractiveness and distinctiveness with the least attractive faces being rated the most distinctive

and the moderately attractive faces the least distinctive. On the basis of the present results taken in conjunction with previous findings, it was concluded that facial distinctiveness is a major variable in face recognition studies.

ACKNOWLEDGEMENTS

I would first like to thank my thesis supervisor, Dr. John Podd, for being generous with his time, providing a great deal of helpful discussion, and proof-reading earlier drafts of this thesis.

I would also like to thank Dr. John Spicer, Dr. Ross Flett, and Nick Kazantzis for their help with several statistical issues. I also appreciate the efforts of various members of the School of Psychology Workshop who helped arrange and prepare for experimental sessions.

A special thanks also goes to Jacinda Dalziell for voluntarily giving up her time to help with experimental preparation and data processing. Similarly, appreciation goes to Ian Barbour and Geordie McCallum for proof-reading earlier drafts.

This research was carried out with the support of the Massey University Graduate Research Fund and the School of Psychology.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES