AN INVESTIGATION OF CEREBRAL ASYMMETRY, ECHOIC MEMORY, AND THE STIMULUS SUFFIX EFFECT

A thesis presented in partial fulfilment of the requirements for the Degree of Master of Arts in Psychology at Massey University.

Elizabeth Blazina - Young

1981

ACKNOWLEDGEMENTS

I wish to thank my supervisor Dr. Nigel Long for the acumen and enthusiasm he showed in helping me turn a rather woolly mass of data into meaningful statistics, and Dr. Ken McFarland on whose door I often knocked.

I am also sincerely grateful to all those students who so kindly volunteered to give up their leisure time in order to take part in this experiment.

TABLE OF CONTENTS

TABLE OF CONTENTS (CONTD.)

LIST OF FIGURES

LIST OF FIGURES (CONTD.)

APPENDICES

APPENDICES (CONTD.)

ABSTRACT

Echoic memory and hemispheric processing of two semantic categories of words were investigated utilizing a stimulus suffix paradigm under four delay conditions. The magnitude of the stimulus suffix effect was evaluated when combinations of concrete and abstract word lists and suffixes were monoaurally presented to the left and right ears. The results showed that the stimulus suffix effect occured for all information presented to both ears but was less pronounced when information was presented to the right ear. A right ear advantage for all information as well as a right ear advantage for abstract information was found. In addition, the right ear showed superior recall of abstract stimulus list and suffix combinations over other list and suffix combinations. Increasing delays between list and suffix presentation led to an increase in recall frequencies for terminal positions in the lists, but this increase was not systematic with delay. Results suggest that the right ear advantage often reported is due to right ear advantage for abstract information, and that echoic memory persists for at least 8 secs. These findings support the dual-trace processing model of hemispheric function and suggest that echoic memory may persist longer than the 2 secs implied by earlier researchers.