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The Effects, in Healthy Adults, of 'Morningness-Eveningness' on
Information Processing Speeds for Visual and Auditory Input

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

Master of Science (MSc)

in Psychology

at Massey University, Albany,

New Zealand

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DEDICATION

*This thesis is dedicated to my parents, Ian and Dianne Pope.
Thank you for your unwavering support and for always being there.*

*It is also dedicated to Missy and Larnie.
For the many hours you were by my side.*

*In loving memory of Missy
1 January 1993 - 11 May 2011*

The study attempted to determine whether information processing speed was influenced by morningness-eveningness preference. Prior studies have not found any ‘synchrony effect’ between a person’s chronotype and time of testing on information processing speed despite other aspects of cognition exhibiting synchrony effects. Thirty five university students aged 18 to 25 years participated in the study. Morningness-eveningness preference was determined by the Horne and Ostberg (1976) ‘Morningness-Eveningness’ Questionnaire, and information processing speed for visual and auditory stimuli was assessed by the Computerised Auditory and Visual Test of Information Processing (CAVTIP) which was developed for the present study. Participants undertook testing at two time periods, one deemed optimal and one deemed non-optimal according to chronotype (9.00 a.m. and 5.00 p.m.). Results indicated that there was an overall synchrony effect for the most complex task but not the least complex, however post-hoc analyses indicated that the synchrony effect was modality specific. For visually presented stimuli there was no advantage in the morning for any chronotype, but there was a disadvantage for morning types in the evening. For the auditory stimuli, evening types experienced an advantage in the evening. Possible implications arising from the findings are suggested.

Keywords: circadian rhythms, morningness-eveningness, chronotype, information processing speed

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