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**Improving memory in midlife:
A multiple case study evaluation of a group-based memory
programme for healthy middle-aged individuals**

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of the requirements of the degree of
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ABSTRACT

The research presented in this thesis evaluates a memory programme ($N = 5$) that was specifically designed for middle-aged individuals. A preliminary online survey ($N = 409$) examined the theory of Selective Optimisation with Compensation (SOC) in the context of everyday memory. The survey informed some aspects of the memory programme by examining the relationships between cognitive failures, memory compensation efforts, and control beliefs. Results indicated that SOC endorsement accounted for a significant reduction in everyday cognitive failures (i.e., forgetfulness, distractibility, and false triggering) and a higher sense of memory control. The beneficial effects of memory control beliefs were partially mediated by SOC endorsement. Counter to expectations, SOC endorsement did not affect the forgetfulness/memory compensation relationship. The Midlife Memory Programme, containing four treatment components (i.e., goal pursuit, memory and ageing education, strategy training, and group discussions), was evaluated by a before/after design with a three month follow-up. The data showed improvements in objective and subjective memory performance and worries about memory performance decrements diminished. While the findings were encouraging, a larger scale study is needed to establish the efficacy of the programme.

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OVERVIEW

Considering the developments of the population ageing process, knowledge about the psychology of ageing becomes increasingly important. The subject of this thesis is everyday memory with a specific focus on the memory of middle-aged individuals. While memory difficulties among the elderly may be expected, forgetfulness is also surprisingly common during midlife. Midlife refers to the period of life between 40 and 65 years of age (Lachman, Lewkowics, & Peng, 1994) and longitudinal and cross-sectional research with healthy populations pinpoints the onset of objective memory decline within the fifth decade of life (Schaie, 1996; Larrabee, Trahan, Curtiss, & Levin, 1988; West & Crook, 1990). For example, Ponds, Commissaris, and Jolles (1997) found that 33% of young middle-aged (40 to 50 years of age) and 41% of old middle-aged (55 to 65 years of age) participants considered themselves to be forgetful. Forgetfulness is not without consequences and more than half of middle-aged individuals perceive forgetfulness as an impediment, and 70% worry about it (Commissaris, Ponds, & Jolles, 1998).

Because research consistently shows that memory begins to decline during midlife it may be said that this reflects an *age-appropriate* developmental change. Individuals who experience age-appropriate developmental changes are generally regarded as individuals who age successfully. Despite the high levels of forgetfulness among the successfully ageing middle-aged, the vast majority of memory research focuses on the elderly with moderate to severe memory impairment. As a result, very little is known about the nature of forgetfulness that more than half of successfully ageing middle-aged adults are worried about and perceive as an impediment. This lack of research extends to intervention efforts that may reduce forgetfulness among this cohort, as interventions are also primarily designed for the elderly with moderate to severe impairment.

The theory chosen to explore the research in this thesis is the theory of Selective Optimisation with Compensation (SOC; Baltes & Baltes, 1990) which suggests key strategies (e.g., selection, optimisation, and compensation) that individuals may employ to adapt more successfully to developmental changes. Briefly, the process of selection denotes the course of action involved in developing, choosing, and committing oneself to specific goals (e.g., maintaining memory function). Optimisation denotes the employment

of means aimed at goal achievement (i.e., employing memory strategies); and compensation denotes the employment of means that are necessary to maintain a given level of functioning when confronted with a loss in goal-relevant means (i.e., taking part in a memory programme). In employing SOC as theoretical background, this thesis focuses on age-appropriate forgetfulness among middle-aged individuals. Essentially, individuals who endorse SOC strategies are hypothesised to adapt better to age-appropriate memory decline than those who do not. The research of this thesis is presented in three separate empirical investigations. A survey method was used for study 1 and 2 which examined a number of theoretical links between memory performance and the theory of SOC. Specifically, study 1 set out to answer questions regarding experiences of everyday cognitive failures in relation to SOC strategies and memory compensation efforts. Study 2 examined the relationships between individual's memory control beliefs and experiences of everyday forgetfulness in the context of SOC. Study 3 comprises the main objective of this thesis – the development and implementation of a group-based memory intervention programme that specifically aims to improve memory performance for middle-aged individuals.

In summary, the fact that healthy, middle-aged adults experience worries and inconvenience because of age-appropriate forgetfulness has not been given sufficient attention by psychologists. The research presented in this thesis provides some insight into everyday memory performance for adults of all ages and a novel memory programme that was specifically designed for middle-aged individuals is introduced. The thesis is presented in nine chapters. Chapter one outlines the current status of empirical knowledge pertaining to the processes of successful cognitive ageing. Chapter 2 and 3 review the systems and functions of memory and examine the factors that may impact on memory performance and chapter 4 reviews established memory intervention programmes. These first four chapters underscore the significance of the rationale for this thesis and place it into the current frame of empirical knowledge and theoretical understanding. Chapter 5 formally describes the range of research questions that are addressed by this thesis and chapter 6, 7, and 8 comprise the research studies that have been conducted to examine the research questions that have led to the completion of this

thesis. Finally, Chapter 9 provides a summary and conclusion of the research findings of this thesis.