

**Are you thinking what I'm
thinking? Explaining the
relation between management
control systems and managers'
causal mental models**

Rachael Lucy Lewis

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Accounting Discipline Group

UTS Business School

University of Technology Sydney

Certificate of original authorship

I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree except as fully acknowledged within the text.

I also certify that the thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

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List of abbreviations

ACFI	Aged Care Funding Instrument
AM	Accommodation Manager
BAC	Board Advisory Committee
CEO	Chief Executive Officer
CFO	Chief Financial Officer
CM	Clinical Manager
CTA	Cognitive Task Analysis
GAM	General Manager – Accommodation
GCM	General Manager – Clinical Services
GOM	General Manager – Operations
GP	General Practitioner
KPIs	Key Performance Indicators
LLLB	Living Longer Living Better
LLO	Leisure and Lifestyle Officer
MCS	Management Control Systems
OM	Operations Manager
RN	Registered Nurse
TAPS	Think Aloud Problem Solving

Abstract

Research into the cognitive effects of management accounting and control systems is largely oriented toward understanding how decision makers use accounting information to inform their judgement and decision making activity. However, the effect of these systems on decision making is not limited to the provision of information; instead, management accounting and control systems may influence decision makers' underlying mental representations, which in turn form a critical input to judgement and decision making in an organisational context. As such, the objective of this thesis is to explore and then explain how the use of management control systems relates to the development of a type of mental representation: managers' causal mental models. In order to answer this question, I undertake a qualitative embedded case study of a medium-sized residential aged care service provider in Australia, incorporating specific Cognitive Task Analysis (CTA) techniques to elicit the causal mental models of individual study participants.

First, I draw on theory and concepts from cognitive psychology to develop the construct of causal mental models for application in an accounting context. I then develop a general theoretical model which identifies the conditions under which the use of management control systems is likely to lead to changes in the causal mental models of either senior and/or operational managers, and provides an explanation of the mediating relationship between management control systems and managerial judgement and decision making activity. This conceptual and methodological development allows for the direct observation of the content and composition of causal mental models, and the development and testing of more nuanced hypotheses relating the use of management accounting and control systems to judgement and decision making outcomes, and ultimately, to managerial and organisational performance.

Second, I apply and extend the general theoretical model in order to develop an explanation of the underlying socio-cognitive dynamics of Simons' (1987) concept of *interactive control*. Specifically, I explain *why* the interactive use of control systems would facilitate learning and contribute to improved managerial cognition and performance, and use the theoretical explanations that I generate to evaluate the conflicting conceptualisations of the interactive control construct present in the literature. I find that all five dimensions of interactive control identified by Bisbe, Batista-Foguet and Chenhall (2007) are required for interactive control to have the hypothesised effects on managerial learning and organisational performance, and provide support for their position that interactive control should be treated as a multidimensional, emergent construct.

Third, I apply my general theoretical model to the phenomenon of *budget participation*, in order to develop a *cognitive explanation* of the effects of participation on managerial cognition and capacity for judgement and decision making. Application of the theoretical model to the phenomenon of budget participation generated a set of three specific explanations: first, it suggests an expanded definition of participation is necessary to completely capture the potential of budgeting for information sharing and coordination; second, it explains the theoretical value of conceptualising job-relevant information in terms of the components of managers' causal mental models; and third, it explains both how and why budget participation can facilitate the transfer of causal knowledge and beliefs between levels of management.