

Chapter 1

Introduction

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1.0 Introduction

This thesis argues for and demonstrates that the introduction of the concept of justification to group decision-making substantially enhances our understanding of this complex process and reduces the problem of post-decision anxiety. As the world yearns for democratic ideals - ideals that represent the highest aims and aspirations of human kind, there are increasing desires that institutions of authority that enable people to act and make decisions on behalf of others must open themselves up to critical public scrutiny without inhibiting those individuals or groups from exercising such powers. There is therefore a need for upfront, socially well-understood and institutionally sanctioned processes of decision justification in order to guide those involved in the decision-making process. In contributing towards the pursuit of this goal, *a group decision justification framework*, which encompasses a decision justification social practice, is proposed in this thesis. The framework could be used as a guide as to how such a social practice could be brought about and supported through a particular form of design and use of group decision support systems. We do not, however, claim that the framework is the only possible one, only that it is theoretically and empirically well informed as well as practically feasible in situations where justification of group decisions are called for.

1.2 Thesis topic and its rationale

In proposing *a group decision justification framework* in this study, we do not deny the fact that human beings are purposive and know a great deal about why they act in the way they do, and that they can and do provide rationales for their actions and interactions if asked (Giddens, 1984). We also acknowledge the fact that in practice people are not

always asked to explain their actions. However, when actors act or are perceived to act in a way that affect others, or act contrary to our normal expectations, such as making decisions which negatively impact on others, such assumed competence cannot be left unchallenged. There are many instances when we need detailed explanations as to *why* and *how* certain decisions have been made. When this happens, it is important that those affected be put in a position where they can judge for themselves that a reasonable attention has been given to their cause. At the same time, a suitable ‘inoculation’ process of building up a more adequate body of reasons in advance of a serious challenge may be helpful to those challenged. This will allow them to develop critical faculties in a way that prepares them to deal more robustly with future attacks on their future decision processes (Toulmin *et al.*, 1979).

We describe *justification social practice* as the ability and willingness on the part of those involved and those affected to set boundary judgments and to translate those judgments into their own rational and cogent argumentation within a well defined institutional and procedural arrangement for rational debate (Ulrich, 1991).

Traditional decision theories and models such as those of Simon and Weber could have benefited from an explicit introduction of the concept of justification into the decision-making process. The argument for not doing so seems to be that the meaning of a decision can be traced in the objective circumstances, in the value premises and preferences of the actor, in the act of selecting alternatives, and so on. This thesis argues that there is an omission in these arguments and suggests a revisiting of these theories and models with the concept of decision justification in mind. We argue and demonstrate that the introduction of the concept of decision justification substantially enhances our understanding of the decision-making process. Because decision-making models such as those of Simon have greatly influenced major areas of the information systems field, such as Artificial Intelligence (AI), Decision Support Systems (DSS) and Management Information Systems (MIS) (Ciborra, 1999), such an enhanced understanding is likely to

have positive theoretical and practical consequences for these areas. Sadly, the mainstream of decision theory left this topic to practical philosophy. For this reason, the arguments presented in this study are rooted in practical philosophy, informed by practical philosophers such as Jürgen Habermas, David Gauthier, Michel Foucault, Thomas Kuhn and Stephen Toulmin but closely align with those of phenomenologists such as Bergson, Schutz and Garfinkel, who argue that the *in-order-to* component in rational decision-making is just the tip of the iceberg. Below, there are the actor's past experiences - selectively evoked according to the existential circumstances valid at the moment of making the decision. These are constitutive meanings - the *because-of* component of the action that can explain the reasons why and how a situation has been perceived as problematic in the first place. The decision justification social practice is aimed at assisting the decision makers as well as those affected by the decision to access these *because-of* components, which are only selectively and circumstantially evoked. A better understanding of these deeper layers of the social practice would enable better designs of computer-based systems aimed at supporting these processes.

1.3 Organisation of the study

In *Chapter 2* we begin our study by exploring in detail the work done by previous researchers. In doing so, we identify the *primary research questions* relevant to our investigation as well as introduce some of the basic concepts, vocabulary, approaches and the underlying philosophical arguments. We also present some of the underlying epistemological and ontological perspectives on our topic and discover the links which will further guide the analysis. Our *research purpose* is stated in two legs; the first is that of seeking an enhanced understanding of the group decision-making process and the potential benefits this process could obtain through the introduction of the concept of justification. The second leg of the purpose is that of finding out what the implications of this introduction are with respect to the use and design ideals of group decision support systems.

In *Chapter 3* the research approach and method followed in the study are described. Some of the key guiding arguments on the choice of a research method in information systems research are presented and discussed. A research framework to be used in guiding the research as a whole is constructed. In addition to the primary research questions raised earlier in chapter 2, secondary research question are generated in accordance with the process-based research approach described by Roode (1993). In seeking responses to the primary as well as the secondary research questions, we discuss the appropriateness of using different theoretical perspectives, with empirical data analysed using an interpretive approach.

Chapter 4 discusses the theoretical foundation of the study. This is the most important chapter which could give the reader a somewhat complete theoretical picture of the entire study. A multi-theoretic analysis framework based on the hermeneutic philosophy is constructed and presented. In order to operationalise the framework, it is decomposed into five interpretive schemes embedded in a hermeneutic circle. A brief description of how each scheme would be used to seek an understanding of both the group decision-making and the decision justification processes is presented. Because decision justification is multi-dimensional in nature, multiple lenses would be used to illuminate the various aspects of the process, as no single lens would be sufficiently robust to illuminate all the aspects that could be at play in the process. A set of principles for conducting and evaluating interpretive field studies in information systems proposed by Klein and Myers (1999) are briefly discussed in addition to those proposed by the author.

In *Chapter 5* the research design is discussed, an extensive amount of data is presented and the results are interpreted using the analysis framework developed in chapter 4. Three data sets are presented. The first set is obtained from key informant representatives of groups through a survey-like (open-ended and non-quantitative) questionnaire, while the second and third are obtained from master of commerce students through *interpretive GSS experiments*. We present a detailed account of why we have designed our research in

the way we did, while pointing out some limitations. In analysing the data, we created new ways of interpretive analysis, using new concepts such as *grids of interpretations* and *scripts*. Two important benefits emerged from the analysis framework. The first was that it enabled us to make multiple interpretations of the same data sets and the second was that it enabled us to identify areas where one theory better illuminated an aspect of the data while the other did not. Some observations from the analysis of GSS use sessions are discussed and related to design ideals from the GSS literature. From the analysis presented in this chapter emerged a *group decision justification framework*. We also revisit and discuss how the *research questions* have been responded to.

Chapter 6 is the conclusion of the study. It draws on the literature and the rest of the analysis and starts by presenting the prerequisites for decision justification. It then discusses the enhanced understanding of group decision-making when group decisions have to be justified. This is accomplished by revisiting the theoretical lenses that constituted the analysis framework used in the study. Based on the empirical evidence presented in chapter 5, suggestions are made as to how these lenses could usefully be adapted for decision justification environments. The implications for GSS use and design ideals informed by Toulmin *et al.*'s schema of reasoning, symbolic interaction and thinkLets are discussed. Finally and in conclusion, we discuss some critical reflections and an evaluation of the study in terms of its quality and the contribution it makes to information systems research. Some limitations and areas of further research are discussed, followed by brief concluding remarks.